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PLATO AND NATURAL SCIENCE

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THE object of this paper is, as the title implies, to investigate the relation of Plato's thought to natural science. More especially, it is intended to examine the widely held view that Plato's influence, owing to the character of his beliefs, was necessarily and positively unfavourable to the development of natural science, as we know it at the present day.

I think there can be no doubt that such a view is widely spread. It would be possible to quote the *obiter dicta* of several distinguished scientists to this effect. But perhaps more attention is called for to statements of historians of science and classical scholars. Thus Mr. Dampier-Whetham in his *History of Science* dismisses Plato in a few contemptuous sentences. "Plato's ideas of nature," he writes, "were deduced *a priori* from human needs and predilections. . . . Based on such ideas, Plato's science is for the most part fantastic." He goes on to make the assertion, based no doubt on a misunderstanding of a passage in the *Timaeus*, that "he roundly condemned experiment as either impious or a base mechanical art."

But perhaps the most complete and striking expression of this point of view is to be found in Mr. W. H. S. Jones's introduction to his admirable translation of Hippocrates in the Loeb Classics. There he presents us with a dramatic picture of Science struggling to free itself from the grip of its "deadly enemy," Philosophy, gaining a momentary success in the time of Hippocrates and his immediate successors, but eventually succumbing to the malign influence. His opinion of philosophy may be inferred from his statement that a philosophic theory (as opposed to a scientific) "is a foundation for an unsubstantial superstructure; no efforts are made to test it by appeals to experience, but its main support is a credulous faith."

He recurs to this point in contrasting the ὑπόθεσις as used by Plato with the true scientific hypothesis. "An hypothesis must be tested by further appeals to sense-experience: a ὑπόθεσις must not be so tested, it must be taken for granted as an obvious truth. Plato would have nothing to do with appeals to sense-experience."

There is more in the same strain, and he ends up with a really eloquent passage. "And so the two methods, that of Greek philosophy and that of modern science, stand face to face. The struggle between them was, for the time being, short. Medicine, almost the only branch of Greek science scientifically studied, was worsted in the fight, and medical science gradually degenerated from rational treatment to wild speculation and even quackery and superstition. The transcendent genius of Plato, strong in that very power of persuasion the use of which he so much deprecated, won the day. The philosophic fervour which longed with passionate desire for unchangeable reality, that felt a lofty contempt for the material world with its ever-shifting phenomena, that aspired to rise to a heavenly region where changeless Ideas might be apprehended by pure intelligence purged from every bodily taint, was more than a match for the humble researches of men who wished to relieve human suffering by a patient study of those very phenomena that Plato held of no account. So for centuries philosophy flourished and science languished, in spite of Aristotle, Euclid, and Archimedes."

Striking though this passage is, its historical accuracy seems in inverse ratio to its eloquence. The last sentence is the worst offender in this respect. It is not true, except in a very Pickwickian sense, that "philosophy flourished" for centuries. The "quackery and superstition" that eventually corrupted Greek science were equally fatal to philosophy as understood and practised by Plato. It is not true, in any sense, that science languished for at least a century and a half after Plato. Indeed, that period might well be called the golden age of Greek science. In mathematics, astronomy, and mechanics few ages have rivalled it. Euclid and Archimedes are only two among many names, which include those of Apollonius of Perga, Aristarchus of Samos, who anticipated Copernicus, and Ctesibius, one of the founders of mechanics. Geography as a science begins in this period with Eratosthenes, and zoology and botany with Aristotle and Theophrastus. In spite, too, of the work of the school of Hippocrates, it is only in this period that the foundations of a scientific anatomy and physiology are laid by Herophilus and Erasistratus. This is only a selected list from a much larger field. But it is surely enough to prove that the suggestion that Plato had in fact any depressing influence on the progress of natural science is totally devoid of foundation.

This might, of course, be accident, and show merely that Plato

had no influence one way or the other. But what is of more significance is that so many of those who came into personal contact with Plato himself developed an interest in the observation of natural phenomena. Aristotle and Theophrastus were both students under him, and both were ardent admirers. They criticized him and differed from him on some points, of course. But there is no sign that in their biological researches they felt themselves in opposition to his teaching. Accurate observations of heavenly phenomena were, of course, part of the training in the Academy. Heraclides Ponticus could hardly have arrived at his astronomical discoveries without such observations. What is of special interest is that Plato's successor, Speusippus, anticipated Aristotle in the attempt at a scientific classification of animals and plants. We know only fragments of his work on this. But they are enough to show that it must have demanded a good deal of careful observation.

It is true of later generations, also, that those who read and admired Plato by no means always felt themselves discouraged from scientific observation and research. Galen, described by Dr. Singer as "one of the greatest biologists of all time," was an enthusiastic student of Plato. And, to come down to more modern times, both Kepler and Galileo declared themselves followers of the Platonic philosophy in preference to the Aristotelian. Such facts ought to be enough to make one feel that there must be something wrong in the description of Plato as in any sense a "deadly enemy" of scientific research.

For a true understanding on this point we must, however, turn to a more careful examination of Plato's own views. How much truth is there in these charges? Is it true that he despised and taught others to despise a knowledge of physical nature, that he discouraged careful and accurate observation of phenomena, and that he claimed to arrive at a knowledge of nature by pure reasoning *a priori*? Such seem to be the main charges against him. But they are not put in very precise language. And it is important to distinguish several different items in the accusation, which have no necessary connection with each other.

In the first place, it is clearly true that he thought that knowledge of the sensible world was an inferior thing to the knowledge of the intelligible world of Forms. It was valuable chiefly—not entirely, as we shall see later—as a means to the latter. And it was incapable of ever becoming absolutely true and certain knowledge, so that the real philosopher or lover of wisdom could never rest content with it alone. So much is certain, and the strongest of Plato's advocates need not hesitate to admit it. But it does not take us very far, and certainly does not make out the case against Plato as an influence hostile to the development of natural science. To

suggest that it does leaves out of account at least two possibilities.

In the first place, it forgets that there is a wide gap between holding that a particular activity is not the highest and best of human activities and despising it as of no value at all. Even if it was held that observation of physical nature was inferior to pure mathematical or philosophical reasoning, it might still have a place in the sum of human activities, and those who devoted themselves to it might be doing valuable work for society. We know, indeed, how strongly Plato emphasized the idea of each man doing the work for which he was fitted by tastes and capacities. And he certainly did not believe that everyone ought to be a philosopher. It is very misleading, also, to speak as if he despised everyone who was not a philosopher, as misleading as it would be, for instance, to suggest that, because the Catholic Church taught that the religious life was the highest life possible to man, it regarded any other kind of life with contempt. And if there was a place for other work, it would be natural to demand that this other work should be done as well as possible. Insistence on a high standard of careful observation for those whose work was observation is not in the least incompatible with a belief that there was higher and better work than this.

The second point is equally important. If knowledge of physical nature is only valuable as a means, it may still be regarded as a very valuable means, even for those capable of mathematical and philosophical work. And it is fairly clear that Plato did, in fact, so regard it. In the *Timaeus* (69*a*) he says clearly that investigation into physical and mechanical processes is necessary as a means because without it that other knowledge, which is what we really care about, cannot be attained. In the philosophical passage of the Seventh Letter, again, he says that a grasp of philosophical truth can only be attained after constant grinding away at "words and definitions and *visual and other sense-perceptions*" (ὄψεις τε καὶ αἰσθήσεις). In the *Philebus* (62*b*) he goes further, and the knowledge of the sensible world and the power of manipulating it are included as necessary parts of the good life. What little we know of Plato's actual practice tells in the same direction. He was capable of careful and acute observations himself. Professor Taylor has pointed out the value of his geographical and geological account of Attica in the *Critias*. There is a well-known fragment of a comic poet describing a lesson in the Academy, from which it is evident that work in botany and zoology was part, at any rate, of the preliminary training. We cannot lay too much stress on the details of this, but it is, at least, clear that it was taken for granted that in trying to arrive at a botanical classification the students would have actual specimens before them to work on. Even in some of the mathematical work the same insistence on accurate observation is indicated. In the

problem about mathematical formulation of the movements of the heavenly bodies, which Simplicius tells us Plato set to his associates in the Academy, the essential condition of the solution was that it must, in the well-known phrase, σῴζειν τὰ φαινόμενα: it must account for all the observed facts. Such evidence may not be very great in bulk; but, such as it is, it is all on one side. And it ought to make us very suspicious of suggestions that Plato despised and discouraged careful and accurate observation.

I would suggest, if I may be permitted a brief digression, that all this is part of the general misrepresentation of Plato as a cloistered scholar, sitting in his study, and working out by pure reasoning all his views, both on physical nature and human conduct. This is really a ludicrous misunderstanding. He was a man of the world, who did not begin to be a University don till he was over forty. Before that he had seen a good deal of military service, if later reports are to be believed, with great distinction. He had been in close touch with political circles, he had travelled widely. It is difficult to see how anyone who reads the dialogues can doubt Plato's shrewd knowledge of human nature. And he was acutely alive to the necessity of experience of life, in addition to philosophical thinking. He warns Erastus and Coriscus in his letter to them (the Sixth) that the latter is only a foundation which has to be supplemented by the former. And much earlier he wrote in the *Republic* that those who devoted their whole time to philosophical reflection were likely to become just as useless as those who devoted themselves to practical activity without thinking at all. The passages in which he appears to speak in depreciation of practical experience will be found, with scarcely an exception, to be directed against those who hold that practical experience is sufficient by itself alone. He never despises practical experience. But he does despise those who are perfectly satisfied with it alone for the conduct of life, and who themselves despise the philosophical thinking which endeavours to arrive at clearness about our ultimate ideals. And his attitude is very much the same towards knowledge of the sensible world.

To return to the main argument, all these criticisms of Plato seem to me to rest on a fundamental misunderstanding of his position. It is true, of course, that he thinks that knowledge of the world of Forms is more important than knowledge of the sensible world. But it is not true, as Mr. Jones suggests, that he regarded phenomena as of no account, nor that he thought that even the true philosopher could dispense with knowledge of them. On the contrary, the passages quoted make it clear that he regarded such knowledge as essential, both as a means to the knowledge of the Forms, and for its own sake as necessary for the conduct of life.

This leads us on to a further point. How does he believe that this

knowledge of the sensible world is attained? It seems at times to be suggested in some of these attacks on Plato that he held that the philosopher could get all the knowledge of the sensible world that he needed by some form of pure reasoning without using his senses at all. But this equally rests on a misunderstanding of his beliefs about the relations between the intelligible and sensible worlds. We shall see directly the sense in which he believes that the former kind of knowledge gives us a clue to our understanding of the sensible world. But it is not true in any sense that he thought that the one could be substituted for the other. He did not believe that it could ever be possible to deduce from any first principle, rationally apprehended, just what would be found in the sensible world. The whole point of his distinction between the world of knowledge and the world of opinion is that they are to be regarded as two separate spheres with different modes of apprehending them, co-ordinate with each other and relatively autonomous.[1] What is in the sensible world can only be discovered in the last resort by sense-perception. Plato never suggested that reason could replace observation as a method of discovering this. If it could, it would mean that the sensible world was completely intelligible to the reason. And it is fundamental to his whole view that it was not. There is always an element of the irrational in it, an element of "brute fact," as a modern writer has called it, which is not accessible to any rational process of argument.

The failure to see this arises at times, I think, from a failure to distinguish what Plato has to say about the methods of philosophical reasoning about the intelligible world from what he has to say about the study of physical nature. Thus, his account of the use of *ὑποθέσεις*, or assumptions, which arouses the indignation of Mr. Jones, is meant to apply, as is clear from the account in Book VI of the *Republic*, to the development of philosophical knowledge, not to the observation of the sensible world at all. And in its appropriate place it is a very useful method and has been applied in fields in which even those most suspicious of the claims of philosophy would have to recognize its value. Thus Mr. Bertrand Russell, in describing the methods of mathematical philosophy in his *Introduction to Mathematical Philosophy*, says: "Instead of asking what can be defined or deduced from what is assumed to begin with, we ask instead what more general ideas or principles can be found in terms of which what was our starting-point can be defined or deduced." It would be hard to find a more succinct account of the procedure recommended by Plato. And we may take the assurance of so great an authority as Mr. Russell that, in his own special field, this method has been fruitful in results.

[1] *τὸ μὲν δὴ νοήσει μετά λόγου περιλημπτόν . . . τὸ δ'αὖ δόξῃ μετ' αἰσθήσεως ἀλόγου δοξαστόν.* (*Tim.*, 28A.)

Again, consider the use of final causes as a principle of explanation in the *Timaeus*. It is clear that Plato held that it ought, at any rate ideally, to be possible to explain what was in terms of purpose, on the grounds that it was best that it should be so. And he suggests one or two tentative explanations on these lines. But it is clear that he never suggested that the explanation by final causes could be used to replace observation or as a proof that in fact such and such things were the case. He suggests no more than that we ought to be able to find a final cause which would explain why the observed facts were what they were. But the final cause was never used to give us the facts. There are certainly difficulties and obscurities in Plato's theory of final causes. But at least this much is clear from the *Timaeus*. The explanation by final causes is not put forward as an alternative to the explanation by physical and mechanical causes, in the sense that the final causes explain some phenomena and physical causes others. That has been held by some thinkers. But it was not Plato's view. For him the two kinds of explanation are parallel and co-ordinate. He would have said that, if we had sufficient knowledge, we should always find it possible to discover both a final cause and a physical cause for every natural phenomenon. It is clear that such a view does nothing to hinder or discourage investigation into physical causes.

As to the investigation into physical causes, it is clear that Plato conceived of this as carried on in very much the same way as any modern scientist would pursue it. That is to say, the theory that seems to him to explain the observed facts best is put forward as the most probable hypothesis. He is fully alive to the uncertain and tentative nature of all these theories. In fact, he insists on it over and over again. ἄλλος δέ εις ἄλλα πῃ βλέψας ἕτερα δοξάσει (another person who has observed different facts will come to a different opinion), is the keynote of the discussion. Where I think he does differ from the modern scientific outlook is that he does not look forward to a continual progress in the discovery of observable facts, made possible by the invention of new instruments and the improvement of experimental technique. He is, doubtless, by our standards much too ready to put limits to the possibility of fresh discoveries in certain directions. That, by the way, is without doubt the explanation of the passage (*Timaeus*, 68*d*), which has been supposed to express his disapproval of experiment. But in this Plato is in very much the same position as any other Greek. There are very definite limits to what we can observe by our unaided natural powers. And not even Hippocrates foresaw the discovery of the microscope, the telescope, or the camera. Still, this is a matter of degree. And there is no reason to doubt that Plato realized the possibility of some further developments in observation.

Where Plato turned for his account of the facts and theories about physical nature given in the *Timaeus* is an interesting speculation.[1] M. Rivaud, in his recent edition of the dialogue, thinks that some of them were derived from investigations made in the Academy itself. This is not impossible in some cases. But the erudition of Professor Taylor has shown that a great deal was taken over from earlier investigators, such as Empedocles, Alcmaeon, and on a few points from Hippocrates or his associates. The few indications that have survived of the methods of these authorities suggest that observation and even experiment were freely used. The experiment by which Empedocles proved air to be a material substance is widely known. Alcmaeon certainly practised dissection. The erroneous opinion that liquids drunk entered the lungs is repeated by Plato from the Hippocratean corpus, where it is based on a recorded experiment. Plato himself suggests an elementary experiment to show that the particles that convey smells are larger than the particles of air.

What are the results of the argument so far? The negative side of the case may be taken as proved. There is absolutely no justification for the suggestion that Plato did anything to discourage careful and accurate observation of nature, or that he claimed to be able to get at the results of observation by any other method. The extent to which he positively encouraged it is, naturally, much more difficult to estimate at all precisely. Yet we may be fairly confident in supposing that Plato would have held that, when observation had to be done, it should be done as carefully and accurately as possible. And the subsequent work of some of his pupils suggests that they felt encouraged by his teaching to devote a good deal of time and attention to the work of observation. But this is not yet the whole story. We have proceeded so far on the assumption, which seems to be adopted by those who have criticized Plato, that the method of scientific research could be adequately described without further qualification as observation and experiment. Yet the history of the development of some of the most important natural sciences might suggest that observation and experiment need to be guided by certain general principles if they are to be fruitful. And it will be the

[1] What is the object of the account of natural processes given in the *Timaeus*? It is not, of course, a record of original observations and experiments. Nor can it be intended as a text-book summary of the knowledge of these matters so far attained. It seems to me that it is best understood as an attempt to see how far these processes, as they were known at the time, could be explained in terms of the geometrical atomism expounded earlier in the dialogue. This theory itself was doubtless worked out as a response to the demand that the material world, so far as it was intelligible at all, should be capable of being formulated in mathematical terms. But the facts to which it was applied were those discovered by the ordinary methods of scientific investigation.

last task of this paper to show that one of the most important of these principles had already been grasped by Plato.

The fundamental distinction that Plato makes between knowledge of the intelligible world of Forms and knowledge of the sensible world of physical nature is familiar to everyone. The former was clear, absolute, and certain. The latter could never attain to the condition of the former. It could never be a completely rational system, but must always contain an element of "brute fact" impervious to the reason. But another distinction of equal importance is apt to be overlooked. Even within the world of sense-perception and opinion our knowledge might approximate to the true scientific knowledge of the intelligible world. It might become relatively scientific, and, so far as it did, it would have to be distinguished from merely empirical knowledge, the mere recording of observed fact. Wherein lies the difference? Plato's answer is quite clear. Knowledge of the sensible world approximates to true scientific knowledge in so far as it takes the form of precise measurement and mathematical formulation. "Science is measurement," a modern scientist has declared. And, as applied to the physical world, that is Plato's answer too.

One of the clearest expressions of this is to be found in the discussion of the practical arts and applied sciences in the *Philebus* (55, 56). He distinguishes among them between those "which have a greater participation in true scientific knowledge and those which have less." And to illustrate this he says: "If we took away the numbering and measuring and weighing from all the arts, what was left in each case would be called a poor thing. . . . What was left would be guesswork and training the senses empirically by practice." He draws the conclusion from this, which might have shocked ordinary Greek opinion, that the art of building because of its careful measurements and use of instruments of precision was a higher and more scientific form of knowledge than the mere intuitive skill of the artist or musician. This is only one application of the general principle which is implicit in the whole of Plato's theory of knowledge.

I cannot but believe that this principle of Plato's would arouse a sympathetic echo in the minds of most modern scientists. Certainly the founders of modern physics and mechanics in the seventeenth century, such as Galileo and Kepler, proclaimed it as their own guiding principle of research. The two scientists just named both associate it with Plato.[1] And one of their quarrels with Aristotle is that he did not realize that the mathematically expressible aspect of phenomena was the fundamental aspect for science. Within the last few months, again, there have appeared two books by distinguished English biologists, the one by Professor Julian Huxley,

[1] And, of course, with the Pythagoreans.

the other by Mr. J. B. S. Haldane. And in both "the permeation of biology by mathematics," to use a phrase of the latter, is spoken of as the chief hope for the advancement of the science. This idea is thoroughly Platonic in spirit.

Let us not overstate the case. Plato was not an experimental scientist, and the Academy was not a scientific laboratory. The amount of original scientific observation and experiment done there was probably small. The greater part, if not the whole, of Aristotle's biological researches were carried on elsewhere in later years. And he may well have owed his inspiration in this direction as much to his medical forbears as to Plato. Of course, in the development of mathematics Plato's direct influence is beyond doubt or question. It is not too much to say that the whole of the subsequent development of the science was based on work done in the Academy under his inspiration. Those who decry the influence of Plato on science have to assume tacitly that mathematics is not a science, and even that its development is of no importance for other sciences. But, apart from this, it has to be admitted that it is difficult to find any definite trace of developments in the experimental and observational sciences which can be ascribed directly to the influence of Plato.

But this is merely to say that it is as a philosopher that Plato would claim to be judged. And the question of interest for our present inquiry is how far the natural sciences provide material which aids us in judging the merits of a philosopher. There is, of course, a certain type of scientist, of which I could name contemporary instances, which seems to hold that there is something offensive to science in the very existence of philosophers at all. With such we need hardly concern ourselves. What is of interest is to know whether any or all of the natural sciences provide any grounds for preferring one type of philosophical theory to another. And it is clear that, at the most, this can only be so to a very limited degree. The definite results of the sciences are clearly compatible with a large number of divergent philosophical views. Where we do, perhaps, find a certain difference is in the relation of a philosophical theory of knowledge to the general methods and assumptions on the basis of which the scientists have attained these results. It is clear that a general theory of knowledge must at least account for the success of these methods. No doubt, here again, most theories that deserve serious consideration at all manage to give some kind of explanation of this. Yet it seems probable that the explanations of some theories will seem more natural and reasonable, more congenial and sympathetic to scientific aims and methods, than others.

Which these are, it is difficult to say. The scientists themselves, to whom one would most naturally turn, are rarely safe guides in this matter, because they are not often prepared to take the trouble to grasp what the philosophical theories mean, still less to work out all

their implications. It is dangerous, therefore, to dogmatize on this matter. But it seems to me, as I have already suggested, that any theory that bases knowledge exclusively on observation by the senses, even when it stops far short of the consistent empiricism of Hume, is a very slippery foundation for the development of science as we know it. Professor Macmurray has recently suggested that science is based on a fundamental scepticism about sense-perception. And it is undoubtedly true that at certain stages in its history it has demanded a radical criticism of the deliverance of the senses. I cannot see that sense-perception itself can provide the stimulus to this. Further, there is nothing in sense-perception itself to make us regard some sensible qualities as scientifically more important than others. Yet it can hardly be doubted that the progress of at least some sciences has depended upon a belief in the supreme importance of the measurable and mathematically expressible aspect of phenomena. Plato, as I have indicated above, cannot be denied the credit of having set scientific thought on that line. Indeed, there are good grounds for holding, as both Plato and Kant argued, that a consistent empiricism cannot explain the existence of pure mathematics at all.

On the other hand, a complete rationalism would be equally incompatible with the development of natural science. If it was held that we could deduce from purely logical principles exactly what we should find in the sensible world, it would be quite impossible to explain the enormous part played by observation and experiment in science. It appears that Hegel made this mistake, and on the basis of it made prophecies, all of which came wrong, about the direction that future scientific discoveries were going to take. But Plato, as I have attempted to show above, never fell into this error. It seems to me that his philosophy has the great merit, from the scientific point of view, of allowing at the same time for the special position of mathematics in the development of science, and for the impossibility of arriving at a knowledge of what is to be found in the sensible world by mathematical reasoning alone without observation and experiment. I believe, not without experimental confirmation, that the scientist, particularly the physicist,[1] who will take the trouble to master the main lines of Plato's theory, will find in it a philosophy more congenial to his own interests and habits of thought than that of almost any other great thinker.

[1] Compare the able summary of the metaphysical views of the leading physicists given by Mr. G. N. M. Tyrrell, in the October number of *Philosophy*. I think that anyone who reads this with a knowledge of Plato in mind will be struck by the remarkable resemblance of most of these theories to Plato's. Of some of them we may feel also that they would gain greatly in coherence and consistency if the resemblance was made even closer. If we turn to more serious and systematic philosophies, based on the scientific approach, we can point to the remarkably close resemblance between the theories of Professor Whitehead and those of Plato.

PLATO'S THEORY OF FORMS AND MODERN PHYSICS

C. E. M. JOAD

THE stream of books and papers devoted to the bearing of modern physics upon philosophical problems is apparently endless. Nevertheless, I am, I think, safe in asserting that the relations between physics and philosophy are still far from satisfactory. If, then, I venture to add one more paper to the stream, it is not because I believe that I am in a position to succeed where so many have failed, but because I have a suggestion to offer which, while it has not hitherto to my knowledge been made, would, if it could be accepted, throw some light upon one aspect of the vexed question of the status of the physical world.

I

The suggestion is prompted by a consideration of the theory of "becoming" to be found in Plato's *Dialogues*, a theory for which, according to the view put forward in Professor Taylor's recent book, Socrates must be held partly responsible. The question which interested Socrates was, "Why is it that things in the sensible world come to exhibit the qualities and properties that they do?" The answer briefly is, "Because of the presence in them of non-sensible Forms which are the archetypes of the properties in question." When a thing which formerly exhibited a property ceases to do so, it is because the Form which was present in it is no longer present; it has withdrawn. If a thing becomes what it was not before, for example, if it becomes square or green, this is always for one and the same reason, because squareness or greenness has become "present in it"; or, in an alternative phrase, it is square or green for just so long as it "partakes of" squareness or greenness. In other words, things in the sensible world come to be what they are and to change as they do because of the continuous presence in and withdrawal from them of a number of non-sensible Forms.

A thing, however, is not *merely* a collection of Forms; obviously not, since, if it were, there would be no world of "Becoming," there would be only Being. Yet there are obvious differences between the two worlds. (1) Whereas the Forms are changeless, the things which "partake of" them are perishable. (2) Whereas the Forms are perfect, the things which "partake of" them are imperfect—we never, for

example, see a perfectly straight line. (3) Whereas a Form is one, the things which "partake of" it are indefinitely many. In addition, then, to the Forms there must be present in sensible things another element in virtue of which they are perishable, imperfect and multiple. In addition, then, to the Forms we must, it seems, postulate a kind of stuff to act as the medium in which the Forms are manifested. Since all the properties which we discern in things are due to the presence of the Forms, the medium must be itself without properties; it must be an absolutely featureless stuff, whose chief, if not sole, function appears to be to act as a medium for the Forms' manifestation; we cannot attribute any property to it, and, because we cannot, there is nothing that we can truly say of it.

It is partly for this reason, I conceive, that Plato refers to it as "Not Being." Again and again the recognition of the need for some factor of this kind appears in Plato's thought; it is referred to under such various names as "the Other" in the *Timaeus*, "the Indeterminate" in the *Philebus*, and "the Indeterminate-Duality" cited in Aristotle's account of the theory of Ideas in the *Metaphysics*.

To me it has always seemed self-evident that some factor of this kind must be introduced if, postulating Being, unity and perfection, we are yet to account for the appearance of change, plurality and imperfection. It is this necessity which, on my view, is fatal to any monistic theory which attemps to give an account of the universe solely in terms of Absolute Being or Unity. Such an account can never be exhaustive because it overlooks the necessity for a "something other" in which the Being is manifested, or by which the Unity is broken up.

Suppose, for example, that we adopt the theological equivalent of Monism. God, who is a unity, creates a world which is a multiplicity; God, who is all good, creates a world containing pain and evil. Whence comes the multiplicity? Whence the pain and evil? Must there not be something other than and additional to God, some brute, intractable element in things, which thwarts His intentions, and impedes the realization of His will? The least unsatisfactory attempt to meet the difficulty on monist lines with which I am acquainted is that of the Indian philosopher Samkara. Discussing the creation, Samkara puts forward the suggestion that God, although perfect, is unable to contain Himself in His perfection. He feels a need to express Himself; so great is His joy, so perfect His goodness, that He overflows. Just as the artist inspired by beauty feels a need to express himself by creation, so also was God moved to create the world, not out of any deficiency or lack, but out of the very fullness and abundance of His goodness. The conception is similar to that of the Christian Platonists who thought of God as expressing His eternal purpose in a world other than Himself by an

act needing nought for its consummation save the intrinsic plenitude of His perfection.

The suggestion is ingenious, but does not really solve the difficulty. The artist does not merely create; he creates in a medium which is other than that which he creates. If there were no material medium, the artist's inspiration would be denied expression. There would be no works of art; there would be only artists. Creation is always creation out of something; expression, expression in something; this, at least, is true of the creation and expression of the artist. Hence, if we are to retain the conception of the artist's self-expression as an analogy on which to conceive God's creation of the world, we must introduce the principle of a medium which is other than God, in which, or through interaction with which, God expresses Himself. The necessity for this principle is in fact realised by Samkara; it appears in his work, and, indeed, in that of many Indian philosophers, under the name of "Maya."

II

I now turn to consider the character of the external world as presented by modern science. The accounts given by physicists of the external world vary—the fact is notorious—with the physicists who sponsor them. The external world consists very largely of matter. What, then, is matter? Matter is a hump in space-time, an electron "mush," a wave of probability undulating into nothingness, a collection of charges of electricity which are not charges in anything, a system of spatio-temporal events whose qualities are exclusively mathematical. A world of matter so conceived is so shadowy and insubstantial that some physicists are inclined to regard it as an emanation from or a construction of their own minds —it is variously described as an inference from events in the brain and the body, a projection from consciousness, a phenomenal selection made by consciousness from a noumenal world—and assert that reality is in its fundamental nature mental, as unhesitatingly as their predecessors announced fifty years ago that reality was material and mind a creation of matter.

Without at this point following the physicists into the realm of metaphysical speculation, we may pause to note one common feature of all these varying accounts of the physicist's world. They are all couched in terms of extreme simplicity; the external world asserted by science is for the most part nearly—it is not yet quite—homogeneous. Sir Arthur Eddington, in an address recently delivered at University College, London, described how the physicist is required to divest himself one by one of his sense-organs, when he

wishes to establish contact with his world. Divested of ears, nose, palate and skin, he is, it is true, permitted an eye, but, since everything that he observes is through a microscope, or a telescope, only one. Nor is it difficult to see why the physicist's sense-organs may be dispensed with; for the qualities which in the ordinary course of life the sense-organs seem to reveal to us—colour, solidity, sound, smell, temperature—are, in the physicist's world, simply not "there." Take, for example, heat. A gas, we are told, consists of molecules of about a hundred-millionth of an inch across, with comparatively large spaces between them, moving about in all directions with an average speed measured in hundreds of yards a second. The molecules meet and collide, and in consequence of their collision the gas has a certain temperature. If the gas is placed in a flame or hot body, the molecules of which it is composed will gain in energy, moving rapidly and colliding more violently. Imperceptibly the temperature of the gas goes up; heat, as we say, is generated. But the cause of this heat is the greater energy of motion of the molecules; or, as a textbook on physics would put it, heat *is* nothing but the energy of motion of molecules.

Similarly, sound is said to be caused by, or alternatively to *be*, waves in the atmosphere. These waves vary in length, in frequency of vibration, and in mode of vibration. Vibrations in length determine the loudness, in frequency of vibration the pitch, and in mode of vibration the quality of the sound. Sound, then, is produced by atmospheric waves. Atmospheric waves are described as regions of pressure and rarification in the atmosphere moving forward with a certain velocity, and the movement of such a region of the atmosphere is the cause of, or simply *is*, sound. Thus the properties of the atmospheric waves which the sounding body gives out determine the character of the sounds which are heard.

Most significant of all is the case of colour. Modern physics deals with immense numbers of electro-magnetic waves, which, so far as their intrinsic characteristics are concerned, differ from each other only in point of speed, wave-length and frequency. In terms of their wave-lengths and frequencies they are graded in the electro-magnetic spectrum. The rays which are called "light rays" occupy only a small part of this spectrum, at one end of which are located the so-called cosmic rays, and, at the other, wireless waves whose wave-length is measured in hundreds of yards. We may express this by saying that in the scale of wave-lengths and frequencies, according to which waves are arranged in the electro-magnetic spectrum, there is a certain section of waves which are, or which have effects which are, visible; these are called light waves.

Light, therefore, is, or is caused by, a certain set of wave-lengths of varying frequencies in the electro-magnetic spectrum. Within this

section of wave-lengths which are, or which cause light, certain sub-sections are earmarked for the different colours. Thus, just as light waves constitute a section of the waves graded by the electro-magnetic spectrum, most of which are not visible, so each colour is constituted by a sub-section of waves of particular frequency and wave-length falling within the light section.

But these sub-sections of waves are not themselves coloured.

If scent, sound, colour, and, we may add, texture, taste and smell, are not really out there in the physicist's world, what is? It is extremely difficult to say. Modern physics postulates a world of point events; it takes four numbers to specify a point event uniquely, and a minimum amount of structure may, therefore, be postulated for the world, that is to say, of mathematical structure. From this minimum structure of point events and the relations between them the mind—according to the most popular contemporary form of physico-philosophical speculation—builds up the world of varied qualities we know, concentrating upon those point events which fall into patterns which interest it, or which it finds significant. Minds differently constituted would make different selections, resulting, it is obvious, in different worlds.

Without necessarily subscribing to the idealist implications which the present state of physics is said to entail, we have, I think, no alternative but to accept this account which physicists give of their world as being fundamentally mathematical in character. Qualities it has, in so far as number, velocity and spatio-temporal position —although the last is no longer so precise as could be wished—can be considered qualities; but for the rest it is featureless. Endow Locke's "substance" with mathematical characteristics, and one might say that the external world of the physicists has been reduced to Locke's "substance." Divested of qualities itself, it has become a mere substratum to support or to provoke the qualities which mind projects into it. In Professor Whitehead's celebrated phrase, "Nature," on this view, "is a dull affair, soundless, scentless, colourless; merely the hurrying of material, endlessly, unceasingly."

The above conclusions are chiefly suggested by reflection on the implications of relativity theory. The picture of the outside world derived from a study of the atom is not fundamentally different. Atoms, we are given to understand, are the fundamental constituents of matter. Yet the atom is not known; its existence is inferred from the effects of the energy which it generates when it changes upon the surrounding environment.

"The idea that there is a little hard lump there, which *is* the electron or proton, is," according to Bertrand Russell, "an illegitimate intrusion of common-sense notions derived from touch. For aught we know, the atom may consist entirely of the radiations

which come out of it."[1] The atom, in fact, has become an underlying *noumenon*, in which the phenomena which are known may inhere, or from which they may emanate, but which is never itself known. Now matter is composed of atoms, and what is true of atoms is true of matter. "Matter," therefore, to quote an epigram of Earl Russell's, has become "a convenient formula for describing what happens where it isn't."[2]

If the atom resolves itself into the effects which the atom, if it existed, would produce, when it changed in the surrounding spatio-temporal field, what are we to say of the surrounding spatio-temporal field? Precisely what we have said about the atom. In so far as there are effects in that field, they take the form of occurrences or events. These occurrences or events are physical; therefore they will ultimately be susceptible of the same analysis as that which is applicable to the atom.

To quote Mr. Russell again: "There is a certain air of taking in each other's washing about the whole business. Events in empty space are only known as regards their abstract mathematical characteristics; matter is only an abstract mathematical characteristic of events in empty space."[3] In other words, we describe what is happening at place A in terms of the events at place B; we describe what is happening at place B in terms of the events at place C, and so on indefinitely.

In so far, then, as the conception of matter has historically connoted the notion of substance, we must conclude that modern matter is not material. The concept of material substance, in fact, has faded out of modern physics, and has been replaced by that of emanations from a locality. For substance X being defined in terms of its effects on substance Y, substance Y in terms of its effects on substance Z, and so on indefinitely, matter itself (if the mixture of metaphors may be forgiven) is perpetually dangled like a carrot before the nose of the inquiring mind. It is a something to which the mind is ever being led, but which it never reaches.

But the doubts suggested by physics as to the possibility of our knowing an independently existing outside world do not stop at the atom. We do not, physicists seem to be agreed, know atoms. But do we know physical objects? The atom, it seems, is known as the result of an inference. But is the physical object known by some method other than the inferential? Apparently not. In the address to which reference was made above, Sir Arthur Eddington descanted upon the nature of the astronomer's knowledge of a star; the star which the astronomer believes himself to observe is not really far away out there in space; it is, he suggested, a series of events hap-

[1] Russell, *An Outline of Philosophy*, p. 163.
[2] *Ibid.*, p. 165. [3] *Ibid*, p. 153.

pening in his laboratory, presumably at the near or hither end of his telescope. But if at the near or hither end of his telescope, may we not also say on the basis of the same considerations, "at the near or hither end of his visual apparatus"? Certainly we may, if we are to follow Mr. Russell. In a celebrated example he invites us to consider the case of a physiologist examining a patient's brain.

"Light-waves travel from the brain that is being observed to the eye of the physiologist, at which they only arrive after an interval of time, which is finite though short. The physiologist sees what he is observing only after the light-waves have reached his eye; therefore the event which constitutes his seeing comes at the end of a series of events which travel from the observed brain into the brain of the physiologist. *We cannot, without a preposterous kind of discontinuity, suppose that the physiologist's percept, which comes at the end of this series, is anywhere else but in the physiologist's head.*" (My italics.)[1]

On this view, the assumption that we make in daily life that in perception an external world is revealed to us more or less exactly as it is involves a double inference. Of the first inference we are in daily experience occasionally aware. In the case of a man looking at a star, for example, the interval of time required for the passage of the light rays to the earth is sufficiently large for even common sense to recognize that it is probably not the star which is the immediate object of vision. The first inference is, then, from the fact that the brain and visual apparatus are being stimulated in a certain way to the existence of an external "something" to cause the stimulation; the second, from the fact that we have the sensation of seeing a yellow patch to the conclusion that there must be a physical object, a star, which is in some way responsible for the patch. Both inferences may be mistaken; in fact, directly we venture to make any statement as to the nature of an external world supposed to be revealed to us in perception, we are liable to fall into error. "We are less likely to be mistaken if we say that the surface of the eye is being stimulated in a certain way, and still less likely to be mistaken if we say that the optic nerve is being stimulated in a certain way. We do not eliminate the risk of error completely unless we confine ourselves to saying that an event of a certain sort is happening in the brain; this statement may still be true, if we see Jupiter in a dream."[2]

The conclusion seems to be that we have no *direct* knowledge of the physical world. Some cause there must be to start the chain of physical and physiological processes which results in perception; but of the nature of that cause we have and, on this view, can have no knowledge. Certainly we do not know its qualities, since these are

[1] Russell, *An Outline of Philosophy*, p. 146. [2] *Ibid.*, p. 138.

engendered by the mind as the result of the cause's impact upon our brain and nervous system. It is not only the familiar secondary qualities of touch, colour, temperature and sound which in Eddington's language are "fancies" projected by the mind into the external world. "Permanence," the "structure" of familiar things, and their "substantiality," are all said to be products of the mind's faculty of "world building." The "something," therefore, subsides into the position of a noumenon, or, more precisely, of a Lockian Substance, a featureless medium owning in its own right none of the qualities we believe ourselves to perceive. "Its substance has melted into shadow. . . . It remains . . . an unknown quantity which the mathematical symbol *X* stands for."[1]

III

What conclusion does this scientific reduction of the physical world to a comparatively featureless medium, a flux of events, suggest for metaphysics? Or, to put the question in another way: Whence, if the qualities of things do not really belong to them, in the sense of being "out there" in the world, are they to be derived? The usual conclusion, the familiar answer, is idealist. As we have seen, it is the mind which is said to project into the world the qualities which it finds. This, it will be remembered, is Locke's answer. "Thus," to complete the quotation which I cited above from Professor Whitehead, "Nature gets credit which should in truth be reserved for ourselves: the rose for its scent, the nightingale for his song, and the sun for his radiance."[2]

It is also Sir Arthur Eddington's. In a famous passage he likens the mind to an editor sitting in his sanctum and weaving a picture of the outside world from the "code messages transmitted along the nerves into its [the mind's] sanctum."[3] That this answer may be correct, I do not wish to deny. There are, however, two observations which I should like to make in regard to it. First, it is impossible to stop at the point at which Eddington and other physicists sometimes seem to wish to stop.[4] If the qualities of things in terms of and by means of which we know them are mental, then the underlying substratum, the "unknown quantity which the symbol *X* stands for," must be mental too. To assert a material substratum is to assert more than we know; to assert an unknown one is to assert

[1] Eddington, *Science and the Unseen World*, p. 24.

[2] Whitehead, *Science and the Modern World*, p. 69.

[3] Eddington, *The Nature of the Physical World*, p. 240.

[4] Not always, so far at least as Eddington is concerned. His view of the underlying unknown stuff of the world is, quite unequivocally, that it is "mind stuff."

nothing at all, since, if the substratum cannot be known, it cannot be known to exist. Thus the idealist interpretation must be pushed all the way, until the world that science studies is pronounced to be mental through and through. And not only the world that science studies. For—and this is my second observation—whatever grounds there are for pronouncing the scientific world to be ideal apply equally to the world of sense. Not only the atom, but the star, must, according to the physicist's account of the process by which we perceive it summarized above, be regarded as an inference from events happening elsewhere. Moreover, the world of science has evolved by gradual and historically traceable stages from the world of sense; it cannot in the long run own a status different from that of the sense-world. If, then, there are good grounds for regarding atoms as ideal constructions, they apply no less to tables and chairs. In other words, the qualities of things are categories imposed by the mind.

This answer, I say, may be the correct one. I do not think that it is, but it is not my purpose to criticize Idealism in this article, and I shall, therefore, say no more about it. My immediate concern is to indicate a second conclusion which is compatible with the facts, a second answer to the question with which I began this section, a conclusion and an answer which are broadly Plato's.

Plato's scheme, as we have seen, postulates two ingredients for the composition of the sensible world: immaterial Forms and a featureless medium in which they are manifested. The suggestion I wish to make is that what modern physics is in fact doing is to penetrate ever farther through the sensible qualities and forms of things and to reveal the featureless medium which underlies them. Already, as we have seen, it has stripped the material world of all qualities except the severely mathematical; and of the severely mathematical, velocity and spatio-temporal position can, it appears, be assigned to particles only in a highly Pickwickian sense. If they have the one, they must, it seems, dispense with the other.

Many have taken the line that the future advance of science will result, if it has not done so already, in the complete elimination of the need for a medium. Everything, as the scientist would say, everything, as Sir James Jeans does say, will be completely describable in terms of law. Now to say that everything is susceptible of exhaustive analysis in terms of mathematical law implies, I take it, that nothing would in the analysis be left over which would be unamenable to law. Now this anticipated *complete* reduction of the physical world to law involves, I cannot help thinking, a serious fallacy. There must, I should argue, from the very nature of things, be a surd element, a resistant intractable something which, from the very fact that it is that to which laws apply, is itself other than

law. This element of brute-given is, I should say, irreducible; its presence sets a definite limit to the advance of science.

The procedure of science is to take the given manifold of sense, and to analyse and correlate it with a view to exhibiting an apparently chaotic diversity of phenomena as exemplifying the workings of law. Success in this undertaking enables us to understand and to predict. The understanding is of the immediate cause of the phenomena; the prediction is of their recurrence, given the same cause, in the future. As it advances, science succeeds in bringing an ever greater area of the given under the aegis of an ever-diminishing number of laws. As its researches are pushed farther and farther back, what was formerly accepted as brute-given is shown to be amenable to law and brought within the scientific fold. But science will never succeed in dispensing with the existence of a something which is regarded as that to which at any given moment its laws are applicable, and this something, from the very fact that it is *its consequences* which law determines, must itself be other than the operations of law. And in saying that it is other than the operations of law, I mean that it is itself unamenable to and unreachable by the operations of law at the particular stage which science happens to have reached. Granted that it may subsequently become amenable, yet it can only do so by giving way to a new something which assumes the rôle of "brute-given" in its place. As Professor A. E. Taylor has pointed out in another connection:

"We have to appeal in all our experiences of the actual not only to 'laws' but to 'collocations.' Science, which hates to accept anything whatever as mere 'given fact,' is always trying with much success to reduce the 'collocations' with which it starts as given to mere consequences of 'laws'." Thus it reduces the collocation which appears as brute matter to elements; the collocation of elements to atoms; the collocation of atoms to charges of positive or negative electricity. "But every success in such reduction is achieved at the price of acquiescence in some assumption of an earlier and more ultimate 'collocation.' Without 'collocations' which have to be taken as 'brute fact,' as *there* we do not know how or why, the functional dependences we call 'laws' would reduce to functions without any arguments, and would thus become as insignificant as the symbol f or ϕ before a blank. Here we clearly come upon an inevitable limit to the whole work of scientific explanation."[1]

Science, then, analyses the world into a comparatively featureless and therefore unknown X—collocations, stuff, matter—the precise name we give to it is immaterial—and the laws which govern its

[1] Taylor, "The Freedom of Man," *Contemporary British Philosophy*, Vol. II, p. 298.

behaviour. Increasingly, all positive statements that can be made about the world belong to the category of law; diminishingly are they statements about the *X*. *X*, in fact, as we have seen, comes to bear an increasing resemblance to Locke's Substance.

Now let us compare the position reached by science with the outline which I gave in the first section of Plato's. Plato, as we have seen, felt the need of a substance, or stuff, as a medium in which the Forms might manifest themselves. This medium was featureless, all the qualities we perceive in the sensible world being due to the presence of the Forms.

The present tendencies of science seem to confirm Plato's conclusion. What science has done is to divest "matter" of the characteristics which we perceive, and to leave "out there" in the external world only a featureless substance. Two alternative ways of dealing with the characteristics then present themselves. We may say either that they are mental, and constructed or projected by the mind; or we may take Plato's hint and ascribe them to the presence in a medium of immaterial Forms. On this view, the element of sensory experience in perception is limited to the awareness of the featureless substance; the knowledge of qualities, of the "what" of things as opposed to the "that," is knowledge of Forms. The difference between thinking and sensory experience is that in the activity of thinking we explore the world of Forms and map out the relations which we discover to hold between them; in sensory experience we are aware of the Forms as imperfectly manifested in a medium. This conclusion involves the presence of a cognitive element (the apprehension of Forms) which all concede in sensory experience, and is thus in accordance with the teaching of psychology; it also has the advantage of deposing from its embarrassingly central position in discussions of the nature of perception the problem of sense-data and their relation to physical objects. On the view now suggested this problem does not arise.

IV

This is not the place in which to explore the full implications of this suggestion. Two may, however, be mentioned. Both throw light upon, in the sense of helping to resolve, time-honoured philosophical difficulties, and to this extent may be considered as constituting arguments in favour of the suggestion which implies them. First, as regards Plato's theory of Forms: One of the main difficulties —perhaps the chief difficulty—which has been urged against this view is that of conceiving the mode of association between the Forms and the particulars which manifest them. To say that the particulars "imitated" the Forms was to do violence to Plato's language, which plainly states that the world of Being is causally

continuous with that of Becoming. To say that the Forms were "present in," or "manifested" themselves in the particulars was open to the following objections: First, it asserted interaction between two radically different modes of being; and, secondly, it presupposed that that which has real Being is the innermost core and essence of that which possesses only partial Being or Becoming.

That Plato did, indeed, think of the Forms as being "present" or "manifested in" the particulars is, I think, clear. The difficulties which have been brought against this view of the relation presuppose the presence of some features or characteristics in the medium, in virtue of the presence of which manifestation of the Forms would be precluded. It was because the world of Becoming possessed this particular characteristic or that, that, it was urged, the world of Being was precluded from entering into, or even from entering into association with it. The suggestion that I have made is twofold: first, that that with which the Forms combine to produce the world of Becoming is a featureless medium; secondly, that this featureless medium is something which science is actually engaged in revealing as the reality—the *sole* reality—of the external, physical world. Now, if the medium really *is* featureless, if, that is to say, science succeeds in its endeavour to carry all features over on to the side of law, then it is clear that we are not justified in attributing to it any characteristics in virtue of the presence of which the Forms would be precluded from manifestation in it. If we are not entitled to say that the featureless medium has characteristic X or Y, we are equally not entitled to say that it presents any barrier or prohibition to the manifestation of the Forms. To take the word "featureless" seriously, implies that the medium is a clean slate for the inscribing of whatever qualities the presence of the Forms in it causes it to exhibit. Thus this particular difficulty of conceiving the possibility of the manifestation of the Forms in the world of Becoming is at least diminished. The difficulty depended upon the assumption that there was some intractable or at least uncongenial characteristic in the world of Becoming which withstood or inhibited the manifestation of the Forms. But to attribute such a quality to a featureless medium is to predicate of it something which, if it is really featureless, it cannot have.

The second suggestion relates to the cognate difficulty of conceiving the manifestation of a mind in a body. Let us suppose that Materialism is untrue, and that a living organism is not all body; it bears witness to the presence of some animating principle associated with the body. Let us agree, further, not to consider the Idealist alternative that it is all mind. I do not wish to rule out this alternative; I merely wish to delimit the area of discussion. Let us suppose, finally, that we reject the double aspect theory.

We are then left with an alternative which is akin to the common-sense view that the individual is in some sense a manifestation of two different principles, matter and life—that he is, in fact, to adopt the Biblical metaphor, a piece of clay into which the breath of life has been breathed. The great difficulty of this hypothesis has always been that of mind-body interaction. If, it is said, life and matter, mind and body, belong to two radically different orders of reality, if they possess no single quality in common, how can they possibly interact with each other? The difficulty prominently displayed in Cartesian dualism has persisted to the present day. And, once again, it is seen on analysis to presuppose the possesion of certain characteristics by matter. It is because matter or body is of a certain kind, because, in fact, it possesses weight, mass, size and extension, that mind is thought to be incapable of entering into association with or animating it. Grant, however, that matter is, as physics seems increasingly disposed to concede, a bare featureless substratum which, as I have suggested, derives all its qualities from the presence in it of immaterial Forms, and the difficulty is again minimized. Matter exists, or rather something exists which is neither mind nor Form, yet this something possesses, we are agreed, no specific characteristics. If it possesses no specific characteristics, then we are not entitled to assert that it is incapable of being animated by mind, since such an assertion would be tantamount to attributing to it certain characteristics from which its incapacity could be deduced, when we are already agreed that it possesses no characteristics. On this view, then, a living organism bears witness to the presence of three separate and irreducibly different cosmic constituents. It consists, in the first place, of the featureless medium which is the stuff or raw material of what we know as the physical universe. This medium comes, in the second place, to exhibit the qualities which we recognize as those of a body because of the presence in it of a number of immaterial Forms. In the third place, it comes to manifest the peculiar properties in virtue of which we call it living, because it is animated in a different way, which is also a uniquely different way, by the activity of life. Mind I should regard as emergent upon a combination of the two factors, namely, life and the featureless medium.

SPINOZA'S DOCTRINE OF PRIVATION

RAPHAEL DEMOS, Ph.D.

ACCORDING to Spinoza, the categories of good and bad—in fact, all categories of value—are relative. The only valid category is that of substance; value as distinct from reality has no genuine meaning. Spinoza's attack on valuation is based on two sets of arguments, one rationalistic and scientific, the other religious and theological. We will consider each in turn.

(A) The world is governed by law; whatever happens, does so by necessity. Now, we easily believe this of external nature, but we balk when we come to human nature; we say man is free to do what he likes. Yet man is not a kingdom within a kingdom; he is part of nature, subject to the same general processes. Human emotions such as hatred, anger, envy, follow from the same necessity as other things, and can no more be reviled or criticized than the cold dampness of the rain or the screeching of the wind. So, Spinoza proceeds to say, "I will consider human actions and appetites just as if I were considering lines, planes, or bodies."

What are the forces which control human conduct? They are both internal and external. (*a*) We are determined by our own respective characters. "The infant believes that it is by free will that it seeks the breast; the angry boy believes that by free will he wishes vengeance; the timid man thinks it is with free will he seeks flight; the drunkard believes that by a free command of his mind he speaks the things which when sober he wishes he had left unsaid. Thus the madman, the chatterer, the boy, and others of the same kind, all believe that they speak by a free command of the mind, whilst in truth they have no power to restrain the impulse which they have to speak; so that experience itself, no less than reason, clearly teaches that men believe themselves to be free simply because they are conscious of their actions, and ignorant of the causes by which they are determined" (*Ethics*, Bk. II, Prop. II, Scholium). The rose is fragrant by the necessity of its own nature, and a thorn pricks; similarly a man with a bad character behaves badly, and should no more be blamed for that than the thorn for pricking. All things, all bodies and all minds, have a determinate nature; as we know to-day, water is a determinate ratio of oxygen and hydrogen, coal is a ratio of other elements, and out of this determinate nature inevitably flow the various properties and behaviour of things.

(*b*) Causation is, moreover, external. We are determined by our characters, and our characters come from heredity and from the environment. The individual is an inseparable part of the universal scheme of things. We are a particular confluence of the forces of nature, or, as Spinoza would express it, we are modes of the Infinite Substance. Our actions and our desires and our make-up are a necessary outcome of the nature of things. We are what we are because the Universe is what it is. In such a scheme, obviously there is no place for freedom, and therefore no place for moral judgment. We come at the conclusion of a long process of development; we issue from the dark womb of Being. We are aware only of the last stages of this continuous process, and are unaware of its deep sources; therefore we have the delusion that we are independent individuals controlling our destinies. Imagine, suggests Spinoza, a stone, hurled high by a man; imagine further that the stone, as it reaches the peak of its curve, comes to consciousness. The stone then would naturally think itself as free because it is ignorant of the forces that launched it; and the stone would then congratulate itself on its success on rising so high. So are we, human beings, missiles flung into the air of life by the hand of Nature, and we delude ourselves with the thought that the course of our lives is traced by our will.

From all this, the denial of the categories of good and evil, of praise and blame, follows as a matter of course. Praise and blame of action presuppose that the act might have been other than it actually was. You blame me for going to the show instead of staying at home and working, you praise me for rushing into the water and saving the drowning man instead of staying on the bank, because, presumably, the other alternative was equally open to me. Otherwise your praise or your blame are as ridiculous as Xerxes' chastising of the waters of the Hellespont because they wrecked his ships. In other words, in order that the ethical attitude be significant, possibilities must be real. But, as Spinoza says, possibility is a confused idea. What is, must be; what is not, is determined not to be by a cause. There is no middle ground of possibility, and everything happens, or fails to happen, of necessity. We conclude, therefore, that the ethical attitude of valuation belongs to a primitive stage of thought, and must retire as soon as the rational, scientific view of things comes on the scene.

The "ought" then has no objective meaning. It is futile to say to ourselves: I ought to do this or that, for I will do what I will do. Similarly, striving, aspiration, the ideal of self-improvement, are attitudes which arise from a confused idea. You do something because you are compelled to do it by your nature; you will do it anyway; and effort of will adds nothing to the result. In fact,

Spinoza maintains that the doctrine of self-improvement is vicious; it means altering your nature, in other words, destroying yourself. By changing yourself, you have become somebody else; you are not yourself any more, therefore you have not even improved yourself. But of course such a thing is impossible, because it entails a contradiction. You cannot make yourself other than you are; you and your acts are a manifestation of your nature, and the two are logically inseparable.

(B) The ethical standpoint sins not only against science but religion as well. Theology, as well as reason, is an opponent of our moral ideas. How so? God is infinite; nothing limits Him, nothing is outside Him. God encompasses everything; He is in the world, and the world is in Him. If so, we cannot describe anything in the world as evil since the world is an expression of God. The whole antithesis of good and bad loses its meaning; everything is good, or rather everything is an expression of divine perfection. God is above good and evil. A thing is good or bad purely in relation to ourselves; what suits us we term good, what thwarts us we call bad. We isolate ourselves from the totality of things, and setting up our little selves as standards, judge the universe. In short, the moral attitude is an expression of our conceit and our provincialism. As we rise to "the intellectual love of God" and see things *sub specie aeternitatis*, we correspondingly abandon our miserable moral distinctions, and view all modes as part of the divine perfection. But, the reader might ask, what about sickness, what about earthquakes, what about the ferocious tiger and the malarial mosquito—are not these evil in themselves? Not at all, Spinoza would answer. Take sickness, for example: it seems bad because I see only its immediate effects, in relation to myself now; but if I had a universal vision extending throughout all time, if I saw my sickness as a link in a chain of events stretching infinitely behind me, and infinitely ahead of me, and infinitely around me, I would perceive it as fitting into a general pattern. As for the tigers and mosquitoes which eat us, that is bad from our point of view, but quite all right from theirs; we are food for one another, and, in so far forth, exhibit the universal interdependence of things. We eat lambs and fowl, and yet do not think ourselves ferocious for that; yet imagine the picture of human character in a history that might be written by these animals.

Spinoza considers other examples. This man is blind; surely, that is an imperfection? Now, Spinoza emphatically denies this. This man is *without* eyes; but that is not the same as saying that he is *deprived* of eyes. Negation must not be confused with privation. A stone has no eyes, yet we do not say it is deprived of eyes, nor do we bewail its fate. Privation means denying of a

thing something which pertains to its nature; but if a man is blind, then it is his nature not to have eyes, and he is not deprived of anything, any more than the sightless stone or tree. It was in the infinite decree of God and according to the nature of things that this man should not have eyes, therefore the blind man is adequately fulfilling his nature in being blind. But you may say, suppose this man was born with good eyesight and then lost it by sickness or accident? Then, Spinoza answers, it was his nature to have eyesight for a certain number of years, and after that not to have it. The accident or the sickness happened necessarily from the nature of things, and therefore the blindness ensued as an expression of the man's nature.

In short, a thing's nature is what it actually is; if a thing is without something, then it is not in its nature to possess it. A square is not a circle, but that is no ground for complaint by the square; a square cannot be anything but a square. But, the reader might protest, other people have eyes, whereas this man has not. Precisely, answers Spinoza; why should this man be like other people? Why expect Peter to be like Paul? Each man possesses his own individual nature which is different and unique; each has his own peculiar way of manifesting the divine character. Let us take an example of our own. My friend has one leg only, and I call him a cripple. I have two legs; some other being in another planet may have three legs; am I therefore deprived of a third leg? I have no wings; angels presumably have; am I therefore to be condoled with as lacking wings? I have no automobile, and I say to myself that I am deprived of one, so I procure myself a Ford. But a Buick is better than a Ford, and I have no Buick, so I get myself one. But when is this process going to stop? There is a better car still, the Cadillac, then there is the Rolls-Royce, then perhaps aeroplanes, and so on *ad infinitum*. This idea that I am deprived of a good thing because I do not have it launches me into a feverish career of acquisitiveness, in which there is no genuine satisfaction, because there is no point of rest. And it is true that a good deal of present-day unhappiness arises from just this conception of privation with its consequent overweening ambition.

Let us get back to our blind man. The opponent might put forth the following argument: it is in the nature of man *in general* to have two eyes, and any individual who lacks two eyes is thwarted in his nature. Spinoza's answer is that man in general is a fiction; what we have is Peter, Paul, John, and so on. The root of the whole trouble arises, according to Spinoza, in the false Platonic doctrine of universals, which holds that there are general essences apart from individuals. Spinoza maintains that there is no such thing as a universal; each individual is distinct and different, and

the word "man" is merely a word. We construct from our own minds a universal pattern of man to which we expect every individual to conform. In fact, Peter, Paul, and John should express or rather can express only their individual natures: Peter as sightless, Paul as one-eyed, John as possessed of two eyes. A Platonic universal is a confused idea; instead of considering each individual in himself, we lump them together for the sake of convenience, and construct an average man; thereupon we judge the individual by reference to this average man. But the latter is nobody and nothing; the only reality is the mode and the Universal Substance which is God.

In such a scheme there is no place for the conception of an ideal, and for striving to achieve ideals. The ideal is already realized, since God is one with the world; everything expresses perfectly its own limited nature. A criminal is perfect of his own kind. An ideal, as usually conceived of, is something from the outside, controlling the actual. But activity is from within out, like the blossoming of a flower, like the artist's self-expression; it is self-determining, whereas a conscious moral end is something that constrains man.

Supposing we agree with Spinoza's dictum that negation is not privation, we might still ask him, why negation at all? Why does not a thing possess all possible qualities? Why should it be without this or that property? The answer is that, to be is to be determinate, finite, limited. A thing (in the created world) is what it is by virtue of what it excludes. Affirmation, among modes, is correlative with negation. Thus it is in the very character of ourselves as concrete existences that we should be without certain qualities. If we were everything, then we should be nothing. (This, however, does not apply to God.)

Yet there are certain difficulties which Spinoza has to consider. Are we to place on the same level, the intelligent man with the fool, the pious with the ungodly, the honest man with the thief? Do the wicked serve God as much as do the good, since they do what they can in accordance with the decree of God? Surely there is a difference. Spinoza answers this point as follows: In the first place, God is not a tyrant who gets angry with the wicked for their acts, nor even is He a judge apportioning blame or praise. From that point of view, He does not differentiate between the pious and the ungodly. But though all individuals express their respective natures adequately, that does not put them on the same level. Some natures have more of substance, express more of God, or rather express God in a deeper, more integrated manner than others. All modes are created and operate in accordance with the decree of God, but each mode exhibits the Divine Substance in a different manner. There are degrees of perfection. To quote: "It

is, indeed, true that the ungodly express the will of God according to their measure, but they are not therefore in any way to be compared to the pious. For the more perfection anything has, the more does it participate also in Deity, and the more does it express the perfection of God. Therefore, since the pious have incalculably more perfection than the ungodly, their virtue cannot be compared with that of the ungodly because the ungodly lack the love of God which springs from the knowledge of Him" (Letter XIX). And elsewhere: "For although a mouse is as dependent on God as an angel is, and sadness as much as joy, yet a mouse cannot therefore be a kind of angel, or sadness a kind of joy" (Letter XXIII).

How should one be able to speak even of degrees of perfection, if categories of value are abolished? In fact, degrees of perfection are degrees of reality; a thing is less or more perfect only in the sense that it has a lesser or greater depth of reality, in the sense that it expresses God's nature less or more adequately. One man is better than another in the sense that there is more stuff to him. And of course there is no return to the "ought," to aspiration, or to trying to pass from one degree of perfection to a higher one. If I am determined by God to have so much perfection and no more, then I should accept my nature and not aspire to change it. A correspondent asked Spinoza: Supposing it accorded better with the nature of someone that he should hang himself, would there be any reasons why he should not hang himself? In a remarkable passage, Spinoza answers that if someone sees that he can live better on the gallows than at his own table, he would act most foolishly if he did not go and hang himself. "And he who saw clearly that he would in fact enjoy a more perfect or better life or essence by pursuing crimes rather than by following virtue, would also be a fool if he did not pursue them. For in relation to such a perverted human nature crimes would be virtuous" (Letter XXIII). However, Spinoza insists that the situation entailed in the question is an impossible one; it cannot accord with the nature of anyone that he should destroy or pervert himself, because that is a contradiction.

At the same time, though the wicked cannot be blamed for their condition, it does not follow that they will be as happy as the godly. God awards neither rewards nor punishments; nevertheless virtue provides its own intrinsic reward, and evil its own punishment. The same principle of universal necessity which makes it nonsense to judge human acts also requires that consequences inevitably follow the act. "He who goes mad from the bite of a dog is, indeed, to be excused, and yet is rightly suffocated; he who is unable to control his desires, although he must be excused for

his weakness, is nevertheless unable to enjoy peace of mind" (Letter LXXVIII).

There is something extraordinary in the manner in which Spinoza defends his position. Traditionally, the idea of God has been used to bolster up our moral nature; God has been represented as a guarantee that ideals and moral effort are valid. The voice of conscience has been regarded as authoritative, because it is the voice of God. With Spinoza, the function of the idea of God is just the reverse. Its effect is to destroy the significance of ethics; far from serving as a support of conscience, God is described as being above good and evil. The more divine we become, the more we remove ourselves from ethical conceptions. Spinoza asserts that the statement in the third chapter of Genesis is correct: the fall of man came about through the knowledge of good and evil. The contrast with the Kantian philosophy is evident. For Kant, God is a postulate of the moral consciousness, whereas for Spinoza, the idea of God negates the distinction of good and bad. What we have here is really two forms of the religious sense: the former is a religion of which the central core is ethical, practical, an incitement to duty; the latter is a religion essentially mystical in character, for which the highest manifestation of life is contemplation of God and union with Him.

Spinoza's relentless logic carries him to certain curious, even tragic paradoxes. His self-confessed aim in launching into philosophy is to discover man's highest good, the ideal of life; yet the result of his philosophy is to teach him that the conception of an ideal, of values, is a confused and inadequate idea. So strong is the moral motive in him that to his great metaphysical opus he gives the name 'Ethics'; yet the conclusion of his book on Ethics is that, logically speaking, there is no ethical standpoint. However, Spinoza does not maintain that we human beings, situated as we are in time and circumstance, should abandon the moral attitude of aspiration after ideals. It is true that from the standpoint of God there is neither good nor evil, but we are not the Deity. We are modes—limited, circumscribed in our nature, and through the fact of our limitation condemned to inadequate ideas. We are human, all too human, therefore provincial in outlook; consequently, we are obliged to govern our lives by conceptions which are confused; we set up ideals, we conceive of a possible pattern of life which we pursue. Not only do we do so, but we are constrained to do so; limitation is in our nature, and we cannot help expressing our nature and therefore proceeding according to the inadequate ideas of the moral sense. A striking conclusion indeed. The doctrine of necessity gives birth to two children which fight one another: it implies that since man is not free, praise and blame have no

objective significance, and it also implies that since man is not free, he is constrained to act according to his limited nature, and so use the confused ideas of praise and blame. But there is a further side to this paradox. Spinoza accepts the limitations of human nature, and sets about discovering the good which man should pursue; this, in fact, is the quest of the Ethics. And the result of the quest is to discover in the fifth book that there is, in the ultimate sense, no valid significance to the life which consists in the pursuit of a good, and that men should accept reality, which is God. In other words, we have a double process of reasoning; and in each case the premise leads to a conclusion which is inconsistent (if not logically, at least practically) with it. The idea of necessity entails a form of life which denies necessity; and this form of life, in its turn, leads in the end to an assertion of the doctrine of necessity, and to an attitude in conformity with this doctrine. May not this succession of paradoxes mean that the theory itself is wrong, or inadequate? This gives us the clue for a consideration of the grounds of the Spinozistic attack on the moral consciousness.

We are here confronted with the conflict between the rationalistic and the ethical viewpoints. The former demands necessity, the latter requires possibility; the former asserts what is, the latter what ought to be; and if we follow out the implications of necessity, the category of the "ought" is seen to be invalid. Granting that there is a conflict between the two, what right has Spinoza to assume the rational standpoint and then test and criticize the ethical standpoint by reference to it? Why assume that the rational standpoint is prior and ultimate? That a person can take the opposite position is shown in the philosophy of Kant. For Kant, the categories of the intellect are limited in their application to the phenomenal world; they are relative to the subject, they do not reveal the nature of the object. On the other hand, the moral categories are metaphysically absolute. Perhaps, neither the position of Kant, nor that of Spinoza, is justified; it is more probable that the rational and moral categories are co-ordinate; the type of argument which proves—with Spinoza—that the moral categories are subjective, can easily be applied to show—as with Kant—that the categories of the intellect are subjective. But this invalidates neither the rational nor the ethical standpoint; all human attitudes are characterized by limitation; they are an approach to the real from a certain selected focus; they involve an aspect of subjectivity. That is why philosophy is necessary, in the sense that philosophy is the attempt to overcome the provincialism of the various special attitudes. But it overcomes this by synthesizing, not by abandoning them; each one is a perspective of the universe, and to that extent each one is a type of insight. What philosophy does is to

correct them by a process of inter-comparison. Thus, while it takes over from science the conception of necessity, of law, of an order of nature, it also takes over from ethics the conception of a moral order and the distinction of good and bad.

To come back to Spinoza. Though he is critical toward the moral attitude, and demands that it prove itself, he never questions the validity of reason. He simply assumes that the categories of reason are objective; he does say that intuition supersedes the intellect, but all along he is certain about the category of necessity, of law, of the proposition that things completely determine one another. Thus Spinoza, while he is self-conscious about the moral sense, is not self-conscious about the intellectual categories. He grants them. Why? One might answer: because he cannot help it; they are involved in our very nature. But so are the ethical categories, as he himself admits. Then why put the second on a lower level than the first? An ordinary man may make assumptions uncritically, but that is not permissible to a philosopher. Granting the limitations to which all human attitudes are subject, we suggest that ethics is cognitive, a form of insight, that its categories are objective; and therefore that any metaphysical interpretation of the universe is bound to take account of ethical concepts. There is then the naïve, *a priori* argument in favour of ethics being epistemically valid. There is, also, the point that Spinoza's position, even though it be irrefutable, is incredible; it is not one which a person can illustrate in his practical life. One cannot act by it. Bettering one's condition is a law of life; criticism is part of reason and of human nature; if so, the idea of privation must somehow be valid. In the end, the separation between reason and the "ought" breaks down, because reason itself is an activity that pursues an end. Truth is an ideal; it is what one ought to believe. In this sense, cognition is a branch of ethics. One destroys the conception of the "ought" in ethics, only to rediscover it as a practice of reason. Thus, to deny the validity of the "ought" on the basis of rational considerations is ultimately to deny the validity of these considerations themselves.

This is of course a dialectical argument. The argument which has genuine persuasive force is the one expounded still earlier, and is no argument at all; it is an appeal to human nature in its simplicity and naïveté, it is the assertion that, in so far as we are unbiassed, we find the moral consciousness to be an integral aspect of the human mind in the same sense as the intellect. And if we accept ethics, we must accept its implications. We must accept teleology in some form, some sort of a doctrine of Platonic kinds, and the conception of genuine possibility. The denial of possibility is at the root of Spinoza's other negations in this connection. All

is necessary, therefore "may be" has no genuine meaning. It follows, for Spinoza, that hope and fear are foolish emotions, because they are based on the idea of what might be or might have been. Imagination, in the sense of play of fantasy, is excluded, since there are no possibilities, no fictions, to be contemplated aesthetically; there are only truths to be asserted, affirmed, or denied. There is no teleology; what will be, will be; I shall do what I shall do, whereas purpose implies the possibility of deciding in favour of another alternative. Thus the crucial issue between the rational and the ethical viewpoints is whether genuine possibilities exist; and if the ethical standpoint is valid, then they must exist.

Let us now consider the presuppositions of ethics on the religious side—presuppositions in the sense of the sort of world without which moral action would lose its basis. Now, a great deal of ink has been spilled in order to prove that the idea of God is necessary for the validation of ethical conceptions. Kant is a familiar case in point. If by God we mean an actuality in which values are preserved, a ground by which moral achievement is recognized and made durable, then it may be argued that without such a God moral effort is meaningless. Achievement must endure in order to be worth while, in fact it must be eternal—if not in itself, at least through its consequences. A teacher who knew that his teachings were forgotten by the students as soon as they were learned would be foolish to continue teaching. If the results of human achievement are not preserved, then our efforts are not different from those of the child which builds ditches and walls in the sand by the seashore only to have them washed away by the next wave. Thus eternality is the groundwork of the significance of moral effort.

But we are not concerned with defending this position just now, only in showing that it is a relevant position. It may be that the hypothesis of God is necessary to the justification of ethical action; but our study of Spinoza has shown that it is possible to have too much God for the good of ethics; we need so much but no more of God, in order to make the world safe for ethics. For if we define God as Infinite Substance, then He is one with the world (since He includes everything), and it becomes impossible to apply critical judgments to the world. Everything is good, therefore the conception of good is meaningless. The rationality of ethics requires a divorce of the ideal from actuality, in other words, a separation of God from the world. With Spinoza, there is no distinction between standards and objects; the actual is the ideal; yet criticism involves the conception of a standard distinct from the actual situation and brought to bear upon it. There must be something which transcends the actual, and to which the actual is compared,

in order that valuation may be possible. Morality is criticism, it is also action. Now moral action, too, moves in a world in which there is a distinction between the ideal and the actual; for moral action is the effort to approximate the actual to the ideal. Moral action, in so far as it is significant, requires two things: the distinction between the ideal and actuality, and the possibility of joining the two together.

The idea of God, as we find it in the Christian religion, is analysable into elements, all of them necessary components, yet fighting each other. There is the infinity of God, and there is the moral nature of God; both attributes are indispensable to the nature of God, and yet, apparently, they are inconsistent with one another. Spinoza starts with the conception of God as infinite, and then denies His moral nature; for if God is infinite, then He includes the world with all its attendant evil. Then either God is non-moral, or else moral categories have no objectivity. Spinoza chooses the latter alternative; Aristotle may be said to choose the former. The exclusive emphasis on the infinity of God leads to the type of religion which is mystical. But if a person's nature is practical and active, he is led to favour the moral categories; the world must be such that something needs to be done about it. Bad is bad, and if the world includes evil, God is out of it. God is distinct from the world. God is limited by the world, in short, God is not infinite, The task of the philosophy of religion has been to devise an intellectual framework by which both the infinity and the moral nature of God might be saved.

To sum up, Spinoza uses the weapons both of reason and of mystical religion in order to batter down the ethical categories. It is really a fight between the giant and the pygmy, between Goliath and David. On the one hand, we have the sublimities: the ideas of necessity, eternity, universal law, infinite substance; but the world of ethics is a lowly, somewhat vulgar world; the medium of action is time and space and matter. Action deals with particular, finite situations; action discovers imperfection and battles it with concrete physical weapons; action presupposes an agent who is free, who can be blamed or praised, in other words an agent whose choices are not fully determined. In the world of action there is a measure of contingency, even anarchy. Contingency, temporal change, bad and good, physical agencies, the particular: contrast these with the basic notions of reason and religion—with eternity and essence, with all-encompassing perfection and with the idea of law; surely, there is something very low-brow and plebeian about the moral realm. Yet perhaps this is the contribution of moral insight to philosophy: that it introduces the halt, the maimed, and the blind into the banquet to which all real things are invited.

There are still two questions which demand an answer, and which will be briefly disposed of in the ensuing paragraph. (*a*) We have argued against Spinoza, and in favour of the moral sense, taking our stand on the ground of common sense. But there is a deeper insight in man, which must also be respected. Man is engaged in action, and in distinguishing between good and bad, but even while so engaged he has the sense that these distinctions are finite, human, limited, that, from any absolute point of view, they must vanish. The truth of this insight cannot be appreciated, however, unless it be understood properly. Its meaning is that the ethical outlook, being one of the many outlooks, cannot be taken into any synoptic philosophical outlook, as it stands. It is the insight that the ethical viewpoint must be corrected by the other special viewpoints. Now such a correction is necessary not only for the moral standpoint, but for any other of the attitudes of the mind —aesthetic, religious, or scientific. Every special discipline is limited, and it abstracts from reality. So is the ethical outlook an abstraction; its limited aspect is therefore not a reason for its abandonment, but only a reason for its criticism by reference to a wider ground. (*b*) It is not enough to say, as we have said in this paper, that the moral categories must be allowed a co-ordinate rank with the categories of the intellect. We are faced with the problem that the two entail contradictory consequences. Some further scheme must be devised in which the two are reconciled by having modifications imposed upon them. That is a genuine problem, but its solution is beyond the scope of the present paper.

THE BIOLOGICAL APPROACH TO PHILOSOPHY

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THERE are many possible ways of approach to philosophy, and there is also an impossible one, though one that has often been tried. That the philosopher can somehow spin his philosophy out of what he finds inside himself; that he has some private internal source of information in virtue of which he can decide what the Universe must be, without needing to take the trouble to look at it, is a belief that dies hard. But it is now dying, if not dead, so that it is hardly necessary to refute it in detail. It should suffice to say that anybody who cherishes the belief will not find anything to interest him in what follows. I shall simply assume that the philosopher is, what we all are to some extent, a spectator of the world and of man's life in it and a commentator on what he sees. Where the philosopher differs from others is in the kind of interest he takes in the facts, not in the kind of facts that are there to be interested in.

The man of science is also an observer of facts and a commentator on them, but he deliberately narrows his range of facts to a special group, and all others he dismisses as irrelevant to his purpose. By this means he avoids at the outset a number of awkward questions and is enabled to develop a special technique for the study of his special department of fact. The philosopher is unlike the man of science in being a spectator of all the facts so far as is humanly possible. He is trying, that is to say, to take a view of the whole, and no fact, however troublesome, can be deliberately excluded. The great achievements of the sciences and also their limitations are the result of this method of theirs, and the immense difficulty as well as the interest of philosophy is due to its method.

There is a further point of resemblance between science and philosophy. The scientific investigator considers a certain group of facts and generalizes from them. From his generalization he predicts further facts and looks to see if the predictions are verified. Generalization and prediction always involve risk of error. When the driver of a car comes to a bend in the road he cannot see round he has to generalize—roads generally go on. He does it implicitly, of course. In one instance he may be wrong; there may have been a landslide and the road may end in a cliff round the corner. In that case he falls back upon another generalization—if you push the brake pedal the car stops. But again he may be wrong, the brakes may not

work. Wrong generalizations may lead to death, but to refrain from generalization leads also to death, more quickly and certainly. In fact it is only by suicide that you can escape generalizing, and suicide involves one final generalization, that the means used will be efficacious.

A genuinely scientific generalization differs from an unscientific one, not in being infallible, but in being made with caution after accurate scrutiny of the facts, in being carefully formulated, and above all in persistent following up and testing predictions from it. The facts themselves do not produce a generalization, and for any set of facts there are many possible generalizations which future experience will falsify. Of different observers presented with the same set of facts some will fail to generalize at all, some will generalize wrong, only a few will hit on a valuable or fruitful generalization. These last are the great discoverers, and differ from the others in some intuitive or imaginative faculty, or whatever you like to call it. Of course, a few discoveries come by luck, many by sheer hard work, but these are mostly secondary or imitative, not really original. The real originator or pioneer discoverer, resembles the creative artist or poet. He is very rare, he is born and not made, and he is not always available when he is most needed.

Like the scientist, the philosopher must examine the facts and try to generalize. He cannot examine all the facts, as he is only human, and he will select according to his interests; but he must not deliberately exclude any facts, and he must not consider any facts departmentally and in isolation. In these respects he is badly handicapped compared with the man of science, whose success is largely the result of choosing easy facts and leaving hard ones alone. The scientist rushes along the high road in his car, leaving the philosopher to plod across country. The philosopher goes slowly and often loses his way, but he has the best views. In fact, so long as there is a view to admire he will not mind very much how far he goes or in what direction. To put the matter more plainly: it is not of prime importance what facts the philosopher studies provided he studies them carefully and candidly with an open mind for others. For his generalizations are not restricted and departmental, but are attempts at something all embracing. They are based of necessity on a partial examination of fact, but they attempt to include all facts.

A large part of the facts the philosopher has at his disposal are the conclusions of the special sciences about their own subject-matter. But the sciences have left gaps. Also each science starts from a set of unproved, unexamined, and often incompletely stated assumptions. Some of these perhaps are borrowed from a sister science and have been properly examined by that science, but there

are some that are simply assumed by all sciences. For instance, all physical sciences assume that in sense-perception we are in contact with a more or less stable and independent system of entities which are the same for all observers, and are not altered by the mere fact that we are aware of them. The assumption is quite likely to be correct, but it needs examination, and it is the task of philosophy to examine it. It is not the task of philosophy to make departmental criticisms of scientific methods and results, that is the scientist's own business. The philosopher only criticizes what the departmentalist leaves uncriticized.

Philosophy consists of two processes, criticism and generalization. They cannot be entirely separated, but as a rule criticism comes first. The philosopher's generalizations are a leap in the dark just like the scientist's, but are perhaps even more rash, for they are an attempt to find a formula which will make clear some absolutely general and universal aspect of things. Such generalizations ought, of course, to be put forward tentatively and modestly. If philosophers have often been cocksure and dogmatic, we may blame the bad example set them by theologians and politicians and, more seriously, false analogies drawn from mathematics. It is, indeed, from these sources that the superstition comes that philosophy can be produced by the philosopher out of his own inner consciousness.

There is a grain of truth in this as in most superstitions. To make a real original generalization in philosophy, as in other studies, calls for an imaginative and creative effort of which few are capable. There have not been many creative philosophers; they can almost be counted on the fingers, and at least half of them were ancient Greeks. Most philosophers simply take their generalizations ready made from some of these originators and content themselves with developing them in one way or another.

There is one last preliminary consideration to be dealt with. The special sciences constitute a series of systematic inquiries into the facts. Among these inquiries I include not only the more obvious physical sciences but all attempts to get systematic orderly information and state it in general terms. Thus anthropology, economics, and political science are included, and history too if historians generalize from their data. All these studies deal with the things that happen to exist and their relations. The relations are permanent in the sense that though the things might be different similar relations would hold, but the things themselves might all be different. Where there is a difference between what is and what might be we are entitled to ask of alternative possibilities which is the best or which ought to be. Where human effort can produce one or the other the question is obviously important. But such questions are unknown in pure science, though they are not unknown to the engineer.

The engineer says (1) We want a bridge over this river, it could go here or there. (2) How can it be built in either position? (3) What will it cost? From the answers to (2) and (3) he can decide (4), which is the best position and is it worth the price? Now the answer to (2) is pure physics. The answer to (3) is also pure science, the science of costing. But (1) and (4) are outside the sphere of physical science altogether. The terms "worth" and "best" have no meaning in physics, but they have in engineering, and the philosopher cannot neglect them. The philosopher thus has his subject further divided into two parts, he has to study what is and what ought to be. In so far as he approaches his subject from the scientific side he will be more concerned with what is than with what ought to be.

At the present day physics is the most exciting science. The theoretical physicists are busy sowing their wild oats. The biologists sowed theirs some time ago in the great Darwinian days, and are now respectable and dull. While the physicists are concentrating on a few central problems and seem to have a final solution almost within their group, each biologist is working away at his own little problem, neither knowing nor caring what anyone else is doing, and nobody can see what will come of it all. A great part of the biological sciences, too, and that the most progressive part, consists of nothing but the application of physical methods to biological problems; that is to say it is merely rather complicated physics. Why, then, you may ask, should the philosopher bother about biology?

This question might be answered historically by considering what advantages those philosophers have actually gained who did bother about biology. But this would be a lengthy business. It will be shorter and more interesting to consider one or two points that arise naturally from the work of a contemporary philosopher—Whitehead. It is remarkable that a thinker who is primarily a mathematician should have found the main inspiration of his philosophy in conceptions that are biological and psychological; but in this matter, as in others, he resembles Leibnitz.

In all ages thoughtful men have been struck by the transience and impermanence of things. "Time," as Locke said, "is a perpetual perishing." This has been the theme underlying half the world's poetry—the grass withereth and the flower fadeth. The motive of all religion is to find, behind or beyond the transience of things, something which is permanent, infinite, and eternal. All philosophies are attempts to compromise between Heraclitus, who said (truly) that all things flow and nothing stays, and Parmenides who said (equally truly) that the Real is one and immutable. Theoretical physics has thrown its weight heavily on the side of permanence. It has always aimed, as Meyerson has insisted, at explaining away anything which is *prima facie* a process of change. Change is explained

away in terms of the motions of simple structureless unchanging entities. There is nothing novel in this attitude of physics.

Aristotle said of his predecessors:[1] "Of the first philosophers most thought the principles which were of the nature of matter to be the only principles of all things: that of which all things consist and from which they first come to be, and into which they are finally resolved (the substance remaining but changing in the modifications) —this is what they call element and principle of things, and therefore they think nothing is ever generated or destroyed, since this sort of entity is always conserved."

You have only to translate the qualitative treatment of the early Greek physicists into quantitative mathematical terms and you have the modern classical physical theory. Modern physics is deeper because it has more and better facts to go upon, but it is not wider than ancient physics. At the present day some physicists are beginning to tire of these first principles. The method of reducing all apparent change to motions of changeless entities has never worked as well as enthusiasts have tried to make out and has never been quite consistently and rigidly applied. It is still a fertile method in some fields, but in others its fertility has been exhausted.

It is an amusing paradox that the fertility of classical physical theory is greatest at present in certain branches of biology, so that its most fervent advocates are actually people who are by way of being biologists. Yet it is in biology that the insufficiency of the theory as a complete account is most glaring. We must admit that the classical theory appears to be capable of answering all biological questions that can be formulated *in the terms it uses*. The trouble is that there are questions we can ask and partly answer which cannot be formulated in those terms. The advocate of the classical theory is compelled to dismiss these questions as meaningless, but we need not follow him.

To anybody not blinded by theoretical presuppositions it must be clear that the essence of life, its stuff and substance as it were, is transience and change. Every living thing is born, grows to maturity, and dies. It is only because it dies that other organisms in their turn can be born and grow. The term of life may be reckoned in minutes for bacteria or yeasts, in hundreds of years for forest trees, but each one is subject to its own limits. The sequence of birth, growth, and death cannot be evaded or altered. All death is death from natural causes; if it does not come sooner it comes later.

A true analogy of life is to be found in music. Would anyone listen to an orchestra in which each instrument played one note for ever and for ever, however cunningly harmonized they might be or however beautiful that harmony might be in its proper succession

[1] Mure's *Aristotle*, p. 17.

and for its proper duration? The only reason for the existence of any one note is that it comes into being after another and dies to give place to a succeeding note. The same is true of a whole piece of music: it has a beginning and an end. It could go on for ever only by means of repetition, which would soon become irksome, or by meandering on without design or significance.

Of course a symphony can be played many times, but each occasion is a new birth and not merely a repetition. The only thing that is permanent is the written score, and the form of it is indeed timeless, but no music exists except when it is actually being played or the score is being read by someone of sufficient musical training. The score itself is only an abstract possibility of music.

We can easily see that transience is necessary to the existence of music because it has no spatial dimensions; its whole existence is in its duration. When a thing has spatial dimensions, say a picture, we usually abstract from its history its spatial characters at some one moment and imagine those characters indefinitely extended into past and future, and we call that the thing. But it is not the thing; at best it is a convenient abstraction, at worst a fiction. The picture *is* its whole history, from its birth, when the painter first laid pigments on the canvas, up to its maturity, when he laid his brushes aside and said "That's done." Then comes its slow decay, the paint gradually blackening and cracking; perhaps there are efforts to restore it, but eventually the end will come. It may be postponed for hundreds of years, but by accident or design, by fire or water, or mere crumbling to dust, it will come. The picture will cease to exist as a picture, though ashes or green mould or dust may remain. For a few hours or a few years while we look at it there may be no noticeable change, so that the timeless spatial abstraction we make from its history seems to be the picture, and in any case as an abstraction, a convenience for thought, it has its uses.

The physical sciences have tried to find existing entities whose history is so long and uneventful—so boring in fact—that it may be entirely neglected, and the entities may be treated as though they were timeless. The physicist speaks of time, to be sure, but it is not historian's time he deals with; it is merely the relation of before and after, not a relation of past, present, and future. There are no dates in physics. Timeless spatial abstractions are easily grasped by the mind, so that as a point of method it is a great advantage to be able to neglect actual histories which are not easily grasped. But a convenient methodological trick may be a deadly snare when it is treated as a metaphysical first principle.

From the observation of living things we get perhaps the clearest indication of what is meant by transience and by history. In their case it obviously is impossible to shut our eyes to the facts. But all

that interests us most in this world is also transient and historical. Above all it is well to remember that, if anything is certain, it is certain that the earth once contained no living thing and that a time will come when again it will contain no living thing. The whole earth itself had a beginning and will have an end. However vast the stage and however tremendous the drama, it is hemmed in on two sides by the rising and falling of the curtain. However loud the applause and frantic the encores, the end is but put off for a moment and the dramatic climax spoilt.

Spengler in his *Decline of the West* has one indubitable fact to put forward: that all civilizations have a period of growth, maturity, and finally decay, and that our present civilization can hardly be an exception. Where he is wrong is in supposing that every civilization follows a parallel course and has a similar length of life. He has to distort the whole of history to make it fit his scheme. There is no possible way of knowing whether our present civilization has passed its zenith or not. Its history follows no fixed inevitable course. Its future depends upon what its present members are now doing or failing to do.

If Spengler had observed the course of nature more carefully and not read so many books, he would not have made such a mistake. A living organism develops as it can according to its circumstances, and is not like a train with a fixed time-table. He would have realized this if he had spent a winter in Devonshire, where roses are in flower in January and daffodils in November.

The growth and decay of a living organism is a real creation and a real perishing. You can say if you like that there is only a rearrangement of pre-existing and imperishable parts. This may be true, but its truth is trivial when applied to living things, though useful within its own sphere in physics. The physicist in order to simplify his problems uses an analytic method; he considers successively smaller and smaller parts of the objects he studies until he comes down to the smallest parts of all. If the larger objects are random collections of the smaller ones, the method gives you all the information you can reasonably expect. But if a large object is an ordered collection of the parts, information about the parts in isolation can never tell you everything about the whole collection except in the relatively uninteresting case where the order of the whole is merely a repetition of an order inherent in the parts. All the parts of a jigsaw puzzle laid out on a table can be said to contain the picture potentially, but you will not be able to see the picture until they are arranged in order, so that it is accurate to say that the picture *exists* only when they are arranged in order, and not when they are put away in the box. There is here on a small scale real creation and perishing.

Even if you have a fixed collection of immutable and imperishable

parts, and even if nothing can happen to them except movement and rearrangement, it is still not true that all arrangements are equally significant. If you are examining the minute parts separately, you will naturally not see the arrangements. Seen from a "microscopical" point of view, heaps of bricks and timber and cement and sand will look exactly the same as a house built out of them. But that is not to say that there is no difference between casual heaps of builder's material and a house; what it means is that the house as such is only seen "macroscopically" when you can take in the whole of it. The house at any moment is an organization of matter, and the history of the house, the whole house that is to say, is the history of the process of organization while it was being built and of its maintenance until it falls to bits. From the point of view of the house it is a matter of indifference whether or not the bricks are eternal. In any case the house is not.

There are questions we can ask about a house and sometimes answer which are irrelevant to heaps of bricks and timber. Is it habitable, or convenient, or beautiful? These are questions about its functions, that is the extent to which it fulfills human purposes, and we can answer the question because we know something about human purposes. We cannot say exactly what the purpose of a living organism is or if it has one. The farmer, of course, says the purpose of a cow is to produce milk, but that is because he thinks of the cow simply as a machine for converting grass into milk. The cow does not think this of herself. When we come to consider the various parts of an organism, as the physiologist does, it is impossible to avoid questions of purpose or function. The function of the eye is to see, and any attempt at a scientific description of the structure of the eye and the processes going on in it which left its function out of account would be fatuous.

In respect to function, the point of view of the physiologist is that of the engineer, according to what has been said previously: they are both concerned with "efficiency." It would take too long to discuss this matter adequately, but one point must be mentioned. The engineer discusses efficiency in mathematical terms and with the use of units and methods of measurement borrowed from physics, but he is discussing something of which classical physical theory knows nothing. Similarly the physiologist can discuss the efficiency of the eye as an organ of vision in mathematical terms and with the help of units and methods of measurement borrowed from physics, but again he is discussing something of which physics knows nothing. It is a great mistake to imagine that anything mathematical is physical. A pound note is worth twenty shillings; that is a mathematical relation, not a physical one; physics has never heard of "value."

In short, the biologist cannot avoid dealing with the notion of purpose; a notion the philosopher ought to help him to elucidate—if he can.

The last question I wish to deal with is one of enormous difficulty, but also great importance. From the fact that an organism grows, it follows that it must grow out of something; and from the fact that it dies, it follows that it must pass into something. Life is a process of exchange between what is conventionally and by abstraction called the organism, on the one hand, and its environment on the other. Conventionally we call the organism at any moment everything going on inside its skin and the environment everything going on outside its skin; that may affect it now or later. Distant things, *e.g.* the Sun, may affect an organism, but we suppose in accordance with physical theory that if they do it is through an intervening medium. There is a definite meaning then in the assertion that the environment at any moment is what is happening at the surface of the skin of an organism. In any case things are always happening there, and they are of two sorts, what the environment does to the organism and what it does to the environment. It must be remembered that an important part of an organism's environment consists of other organisms. The philosopher Hobbes said that the life of man apart from society would be solitary, nasty, brutish, and short. That was an understatement; it would be of no length at all. Even the most unsocial man needs a father and mother to get himself born.

The distinction between organism and environment depends in the first instance on an abstraction, the timeless spatial abstraction I have mentioned already. We take the volume that at one moment is inside its skin and label all the parts O; all that is outside at the same moment we label E; and that seems quite clear. But if we stop and watch for a time the labels do not all stop in the right place. The air I breathe in is now E; in a minute some of it will be O. The air I breathe out is now E, a minute ago some of it was O. A living organism is a process of exchange.

If we take the fully developed organism as simply given and as something stable, we can investigate the exchange between it and the environment in the terms of classical physics—the motions of unchanging entities. A great deal of useful information is obtained in this way, in fact a large part of physiology. But this information is limited in scope and depends upon assumptions that are not strictly true. The organism is not just given and it does not exist in isolation. It has developed out of its ancestors and its environment, and it is what its history has made it. In some respects and up to a point an organism can go its own way, but its freedom is strictly limited. For the most part its development is limited and

even moulded by its environment, past and present. To some extent the environment is moulded by the organism. At any rate the mutual relationship is extremely close, so close that if we take a long view we can hardly say where one begins and the other ends. The method by which all things live by taking in each other's washing is one which physical theory has not yet acquired the categories to cope with. It is true that Whitehead has tried to give a philosophical basis for such a study, but it is also true that the parts of his book that deal with it are almost unreadable.

I have tried to show that there are certain aspects of the world which a study of biology inevitably thrusts upon the notice of the philosopher; that these are aspects that classical physical theory has ignored and that physics is still ill adapted to cope with. There are, finally, two misapprehensions I wish to guard against.

In the first place, the classical physical theory is not "the Faith once and for all deliverd to the Saints," as was thought only a few years ago. It is being reformed and extended under our eyes. The reformed physics ought to be able to take all these things into account. If not, so much the worse for physics, but also so much the worse for biology. We cannot admit a fundamental cleavage between the sciences without stultifying scientific method which is the same in all sciences.

Secondly, and this point follows from the first, these aspects are not peculiar to living things. But in considering the world of non-living things they can be ignored without much difficulty and have been ignored. In living things they simply stare you in the face

RELATIVITY IN ETHICS

Professor G. R. T. ROSS

I. Good in General

It is fairly clear that, when I say "I like this" and "This is good," I do not mean the same thing. Even though I should reverse the position of the two *relata* in my expression of the former proposition and state the non-symmetrical relation intended in the equivalent form, "This is liked by me" unidiomatically or, in good English, by "This pleases me," the meaning of what I assert would not be logically equivalent to "This is good." True, it is certain that, if I actually believe the latter, I also believe the former; *this* must please me in some way: I approve of it. Here, however, we have only one-sided implication, not equivalence; B implies A, but A does not imply B.

We shall now inquire how the actual judgments as made by me, viz. B:" This is good," and A: "I like this," differ. We may not be able to state all the respects in which the two are diverse, but some seem quite obvious. First, however, we must pause to note that judgments of both types are addressed to persons who are supposed to be able to grasp their meaning. If I am a solitary, they may be addressed to myself, and this case will be considered later on. Usually, however, the person addressed is another. Now, I am hardly likely to inform a blind person that I like Turner's painting, though perhaps, if he takes a kindly interest in me, he may be glad to know that I like something, even though he has no idea of what that object is. I certainly will not go on to inform him that Turner's pictures are good. It would not only be futile but cruel to discuss such a matter with him. There are also certain limits to the communication of such opinions to others prescribed by even a moderate amount of worldly wisdom. I may, indeed, inform a person who is very fond of contradicting what others say that I like this or that, because he can effectively silence me, only by proving me to be a liar; but I will not venture to declare to him that any thing is either good or bad. Still less likely am I to do so if I am his *bête noire.* He is sure to find reasons for disagreeing. In the cases in which we do communicate our thoughts both about what we like or dislike, or about what we think is good or bad, we can distinguish two groups: first, those in which we give information in good faith to others who presumably have not had the same opportunities as ourselves for forming an

opinion as to whether a given object is good or not, and, secondly, those in which we wish to persuade others that something declared by them not good or not bad is respectively good or bad.

Having heard a piece of music, I may say "I liked this," perhaps only to myself. This statement contains nothing beyond what is explicit in it, except the suggestion that I should like to hear the music again. If it is made to a friend who has not heard the passage in question, it implies nothing beyond itself, except the suggestion that he might like to listen to the music also. Again, if I say to a companion at table, who has not tasted the dish, "I like this," I am merely recommending him to try it. But, on the other hand, I may say "This is good." In this case, besides telling my companion that I like the dish, I am telling him that he also will like it. Perhaps after tasting he says, "Yes, I like it"; perhaps, however, he demurs: "Not to my taste, too much pepper," he may declare. Then I feel disappointed. My disappointment may be due not merely to my interest in his pleasure, but, if I pride myself on the accuracy of my opinions, to my consciousness that his verdict has upset my assertion. If he does not like the dish, my contention that it is good is untrue. If my friend had tasted first and said "This is not good," and I had replied "Oh, I like it," he would have felt a similar opposition to his assertions. If I like the thing his statement that it is not good must somehow also be false.

Superficially this situation seems to break the law of non-contradiction. Not really, however; both our assertions are composite propositions. "This is good" contains at least the two propositions "I like it and you will," viz., X and Y. "This is not good" means not-X and not-Y. Now these two propositions cannot both be true, but they may both be false—mere contraries. In the given case both are false, the truth being X but not-Y, viz., I like the dish and he does not.

At this point, without explicitly recognizing that both our assertions are wrong, we shall acquiesce as the truth of the proverb about tastes and let the matter drop. I shall ruefully agree that what I think a good flavour he does not, and perhaps try to account for his strange behaviour, by invoking the further proverb about one man's meat possibly being another's poison. Something of this sort is no doubt the true solution. Perhaps, if it were worth while, physiologists, or perhaps the all-daring psycho-analysts, might resolve humanity into a series of groups classified according to the magnitude of their co-efficient of pepper-tolerance! Then, if I made my statement "This is good" relative to the group of which I am a member, it could not be upset by the failure of a member of another group to like what I did. No doubt it would still be liable to disproof if inductive evidence were forthcoming to show that the limits of the

variable defining my group had been wrongly assigned. Still, research might gradually eliminate such errors. The fact remains that most of our unqualified and non-relative judgments about what is good or bad in flavour are false. A few seem to be true. No one likes mud pies! Hence it is true that their taste is not good. Fortunately for the security of this assertion the earthworm is incapable of dissenting.

The same trivial illustration will serve to elucidate the second class of situations we have in mind, viz., that in which we hope to persuade the persons addressed that what they do not think good (or bad) *is* good (or bad). My companion at the table may be a controversialist, or perhaps merely concerned for my health. He may remark, "Bad for one, these highly seasoned foods!"

Now, here the venue is changed. We are no longer discussing the flavour attributes of the dish about which we differ, but its dyspeptic or eupeptic qualities. There seems indeed to be no theoretical limit to the number of the species of attributes that a given thing may have, and we may try to maintain that it is good in respect of one, bad in respect of another, good in a third respect, and so on. However, there are practical limits to the range of our likes and dislikes, and we can often sum up a finite group of attributes in respect of which the thing is good or bad, and then by comparing total goodness with total badness declare whether the thing is good on the whole. At present, however, in this example, we have reached only a second class of attributes, viz., the digestive qualities of this dish. Now my friend hopes to convince me by some scientific argument that the food which I commended to him is not good. Let his facts be sound and his inferences valid; he will convince me (if I am sufficiently intelligent), but only on one other condition being fulfilled, viz., that I like what is called good health. If I were to reply that I didn't in the least mind being dyspeptic, he naturally would think me a futile liar, because it seems to be the case that every human being prefers to have a good digestion, just as we all dislike mud pies. Still, on the wildly improbable hypothesis that he has been addressing a ghoul or some other unearthly being who doesn't dislike dyspepsia, his statement that it is bad is false. His assertion can only become true on being turned into a proposition affirming that every human being likes to have a good digestion. Here we see that once more the unqualified assertion "This is good" (or bad) assumes agreement at some point with the assertor about what the person addressed likes or dislikes. The only way to make "This is good" a matter the truth of which can possibly be decided is to transform this apparently singular proposition into a general proposition of hypothetical or universal type, *e.g.* "Every being of such and such a character likes it." That is to say, the goodness asserted must be made relative to the kind of being that approves of it.

Further examples are hardly necessary. If anyone tries to convince me that Stravinsky's music or communism is good, he must appeal to some approval that we share in common and show that the attributes of these things are *propria* of things I really love, *e.g.* that only a communistic society gives justice to everyone, assuming that I love justice; against those who prefer the good old rule, the simple plan, his arguments would be powerless. Their good could never be his good.

Reverting to our previous illustration, we may stop for a moment to consider what can happen if I am really convinced that the good I like is bad for me. I may conveniently forget the lesson I have been taught. Being a man of iron will (disguised masochism, no doubt!), I may change my diet. It would seem barely possible to change my liking for a particular flavour into a dislike, and, if so, my altered mode of life would be for me only a mixed good, i.e. better on the whole. Nevertheless something like the transformation of a liking into a dislike seems actually to occur in those cases where the integration due to new experiences is most complete. Thus most people initially find the experience of incipient intoxication distinctly agreeable. Yet the moral repugnance to the degradation of drunkenness, whether in one's own self or as merely observed in others, may be so great as distinctly to sully one's innocent enjoyment of alcohol; that which once pleased is afterwards loathed.

II. Comparison of Value with other Attributes

Let us compare assertions predicating good or bad, so called tertiary qualities, with those affirming (or denying) secondary and primary qualities of objects and even attributes of any sort, *e.g.* relational characters. Let us take (1) "This is red," (2) "This is round," (3) "This is equal to that." First, however, it will be assumed that liking *qua* liking is the same experience in all; and similarly also sensation of redness, the perception of roundness and the apprehension of equality. True, on the hypothesis that content is incommunicable by those in the sea of life enisled, this assumption is unverifiable. Yet if we grant that each of us may have a totally different experience when seeing what we all call red, we should have to allow that we all might have quite diverse experiences in perceiving sameness or difference. But since this very diversity may be something different in every other person's mind and different for each, it follows that for what each of us calls different minds there may be no common world. The belief that each person lives in a separate universe, if seriously entertained, would lead to the dissolution of society, and we should not like that. This would not render the belief untrue, but there seems no reason for believing

the ghastly hypothesis, since there is no evidence whatsoever in its favour. We shall hold that people using the same language for the most part have experiences identical in kind when they talk of red or round, two or three or equal; and so also liking and dislike. In general, persons with nervous equipment identical in character and stimulated under identical conditions have experiences identical in the character of their content. This formula gets rid of the exceptional cases of, *e.g.* the colour-blind, who may use the same word as the non-colour-blind without having the same experience.

Suppose that I am looking at a dark-coloured object and say "This is reddish." Another onlooker also may agree, but a third person perhaps dissents and says he cannot see a tinge of red in the colour. Here again I detect an opposition to my assertion; for "This is red" probably included the belief that anyone who looked at the object would have the same experience as I had, viz., sensation of red. On reflection I may be content with the unsatisfactory conclusion that what is red for one person need not be red for everyone else, and that this is a case in point. A more scientific procedure would be to transform my judgment, as in the case of liking pepper, into a general proposition of the type "Anyone with such and such a sensitivity of retina under such and such conditions of lighting will have sensations of red when looking at this object."

In defining the group and stating the conditions under which its members will have sensation of redness we have much more chance of success than in the case of liking or dislike. For one thing we are in the field of the special sensibles, the exterior organs of which, at least, are more easily studied. Approval and disapproval are central functions, and not only are they thus more difficult to investigate, but whichever of the multitude of mechanisms that mediate our numberless likes and dislikes be the one in question, it is probably conditioned in its functioning by previous and simultaneous events in a manner much more intricate than, *e.g.* the working of the light-adapted or dark-adapted eye.

As a matter of fact, however, we do not usually proceed to settle the question of a thing's redness by specifying the groups of beings to whom it looks red. We turn the issue into one dealing with the supposed primary qualities of the imperceptible objects which scientific theory assigns as the causes of our sensations of colour. The question "Is this red?" becomes "Does this emit or reflect red light?" Now, our scientific theory must assert that the presence of the imperceptible red light (*i.e.* light waves) produces certain perceptible effects over and above the sensation of red which it produces in some people. These results must themselves be visual; at least the writer knows of no tangible, audible, or olfactory test of the presence of red light. The visual effects must, however, be results about which

the person addressed will agree. I suppose that the most appropriate method of settling disputes like the above is to note the reading on some instrument, a matter about which practical unanimity can be attained as opposed to the diversity of opinions about shades of colour. Still, ultimately the judgment "this is red" reduces to "all persons of a specific visual acuity can note certain effects caused by the presence of an object which also causes some beings the specific sensation of red." Thus in general form the analysis of "This is red" and "This is good" is the same; to be accurate both must relate a specific experience to a specific class of percipients.

Roundness need not detain us long. If dispute arises about the circularity of a given shape, I suppose we fetch a pair of compasses, and the coincidence or non-coincidence of the figure in dispute with the newly described circle settles the matter. Just as we do not say that everything that looks red to anyone is red, so we do not maintain that everything that looks round is round. The impression of uniformity of change of direction in a closed curve is, no doubt, a unique experience corresponding in the perception of roundness to red sensation in the awareness of redness. Nevertheless a person may have this experience when looking at a figure which he afterwards acknowledges not perfectly to coincide with a true circle superimposed on it. Circularity is thus defined as satisfying certain tests about which all with a certain acuity of vision (or, in the blind, motor-tactual discrimination) are agreed.

It may be urged that all this assumes that we already can detect the standard perfect circle. It does; and this enables us to bring in the affirmation of equality in its simplest case, viz., the equality of the radii of a circle, *i.e.* lines. Here once more the test of the truth of the assertion in this case, viz., "This is equal to that," can ultimately only be effected by the superposition of one line upon another. Our judgment is finally relative to some standard of visual acuity, which, luckily, is something about which the maximum of agreement is possible. Consider what would happen if in judging equality of weights we were confined to "weighting" things in our hand. We should be condemned to the hopeless task of defining the group to which two given weights gave the impression of equality, a matter as difficult as the characterization of the pepper-loving group. Still, even with the balance, our assertion of equality is only true if it takes the form "all persons with such and such powers of perception see certain effects which are the consequence and only possible consequence of the equality of the weights," viz., that neither scale touches the ground either before or after weighing. It is relative to *that* group which happens to contain most of the human race.

Fundamentally, then, judgments of value are of the same type as propositions ascribing so-called objective attributes to things.

"Objective" in this sense merely means to be capable of being ascribed by common consent to a given object; to be "subjective" means not so to be capable. If redness were merely the capacity of producing sensation of red in a subject it would be subjective, but when it is defined as being also the capacity to produce certain effects about the occurrence of which there is no dispute, it is taken to be objective. Many likings and dislikes are purely subjective in the sense of being confined to limited groups of subjects. Thus many of the things which we ambiguously call good are only subjective goods. Nevertheless, all the attributes which we apprehend are relative to the experience of some group, whether that group consists of all the beings capable of understanding the propositions ascribing them to objects or only some of these beings.

In another sense of the word "objective" doubtless it could be maintained that all attributes included in the same genera as those of which we have given examples are objective. This sense may be described as the being a character of an object other than the experiencing subject. The circularity which, through defective vision, I falsely ascribe to an ellipse is a character of *some*thing other than myself. My ascribing it to the ellipse is a complex function of that figure and my poor eyes; the redness which by successive or simultaneous colour induction I now erroneously assign to something white is once more a colour of something. Redness is not an attribute of nothing, and that of which it is an attribute is not myself. If redness be regarded as merely subjective in the former sense, then the *paper* is red—for me now. In the case of those attributes which consist of capacities to please, then, however subjective the liking of a thing may be, that capacity is ascribed to the thing that pleases and so is objective. In any case the capacity to produce liking, sensation of red or perception of roundness, is not resident in the perceiving subject considered merely as that which apprehends; it is objective.

III. Application to Ethics

From the philosophical point of view Shakespeare misstated Hamlet's philosophy of good and bad, for thinking, at least in the sense of apprehension, makes nothing, however much it may discover. It is liking or disliking that makes things good or bad. Our purpose here is to restrict the application of this doctrine to moral good and evil; it would be too much to examine these attributes as they appear, not only in every category, but in every species of physical or psychical object. Nevertheless our doctrine explains why it has been maintained and in what sense it is true that good is a single indefinable attribute. Our theory does not make it indefinable, for indeed it defines good in terms of liking; but it takes liking as

being a single unanalysable attribute. Whether you love virtue or the violin there is something identical in your experience in both cases; being pleased, no matter how, is recognizably similar in all cases, and there is an analogy between, *i.e.*, an identical general pattern in, its practical effects every time. A smile always indicates the same experience.

In discussing moral good it has to be assumed that there is such a thing as the class or domain of moral judgments. This is said without prejudice to the claim of a certain logic to have rendered the notion of class impalpable. Such a logic is bound to put an efficient substitute in its place, but in fact those who have claimed to have pulverized the idea continue to talk of classes of numbers, *e.g.* integral and non-integral, of routes, *e.g.* geodesics and others, and so on. Then again, it is not asserted that the limits between the class of moral judgments and others, *e.g.* those of Aesthetics, can be easily assigned, any more than the boundary between the warring States of Bolivia and Paraguay. The two classes, like the two States, remain, however, separate entities. In a rough manner we might define moral judgments as those passed on conduct. The predicates good and bad at least (in the moral sense) are primarily attached to acts. We do talk of good men and good institutions, but the goodness of these is derivative. No man is good unless his acts are good, neither is any institution morally good unless it issues in morally good behaviour. If we were asked to state precisely what is the conduct on which moral judgment is passed, we might hazard the definition that it consists of intentional acts just in so far as these cause any conscious being to experience pleasure or pain. Now, when on any such act anyone passes the judgment "This is good," there seems more rarely to arise that crude divergence of opinion that we find when the judgment refers to matters of taste. True, a cruel vengeance wreaked by a savage on some enemy of his tribe may be applauded by that tribe, who simply fail to see the evil of the cruelty practised when its object is an enemy. Similarly a depraved scoundrel in any civilized society may see no merit even in an act of sublime self-sacrifice. Still, there are these cases, and the judgment "This is good (or not good)" can only be made safe by saying that men of such and such a class approve (or do not approve) of this act.

Most cases of disagreement, however, concern acts that have various features, some of which are approved and others not. Two sets of such cases occur. First, we may applaud an act on account of some feature in it, being ignorant of others of which we should disapprove if we knew of them. Thus we may say that a certain charitable bequest was a good deed, knowing nothing about it except that it made its beneficiaries happier. Someone may disagree, knowing that the motive of the benefactor was merely self-advertise-

ment or a desire to spite his relatives. On the former hypothesis the act receives no moral approbation, on the second it is probably condemned. However lucky the objects of the charity are, hospitals or the arts and sciences, the act is not morally approved. Secondly, there is the case in which in one or more respects the act is morally approved and others in which it is condemned. Say the wife is loyal to her husband, but disloyal to the State in hiding a murderer. Here comes in the question of the balancing of good and evil, and different people may disagree sharply about the direction in which this balance slants. It is notorious that different individuals, different social sets, different nations and different civilizations disagree violently about their approval or condemnation of an enormous number of acts each taken in its entirety.

In such cases, before even discussion is profitable, there must be agreement between the disputants that such and such features of the act in question are good and certain others bad. For example, take an act of charity performed with a kindly intention for which someone censures me because it only encourages thriftlessness in the beneficiary. My opponent assumes that I disapprove of pauperization. If I say that I do not mind any man being as lazy as he pleases, that I see no evil in a whole society of drones, then the debate is finished; we are exactly in the same plight as in a disagreement about the pleasantness of a flavour. Now modern decadent literature shows the existence of an abundance of persons who are "sick of the pretensions of the spirit," who look with indifference or perhaps even disapproval on courage, fidelity, temperance, and all love that is not lust. What are we to say to them? No doubt we heartily loathe such creatures and call them reptiles, curs, or swine, and regard them as abnormalities. But what also are we to say to those who, while agreeing with us as to the major virtues, dissent from us about the balance of good and evil in a particular act? Take the painful case of the repudiation of a debt because its payment is no longer equitable. Here we have seen different Governments approve of opposite policies.

We can advance no farther than to say "This is good" means "I and a number of people similar to myself approve of this conduct." It is hard to reconcile oneself to this view; we tend to characterize those who disagree with our verdict as of inferior morality to our own; but in the absence of any test on which all will agree, as in the case of objective redness, roundness, or equality, how is it possible to settle the question? The only way to establish an unconditional good is to posit an unconditional Being. Then what He approves will be good and what He disapproves bad; but the method of ascertaining what His mind is remains obscure.

Good then remains doubly relative: (1) relative to some approving

mind or other, and (2) relative to different groups of such minds. The advantages of such a theory are numerous. We have already noted how it accounts for the unity of the notion good. It also accounts for the diversity of actual goods, moral included. One act is said to be good in respect of being courageous, another (or perhaps the same) in respect of being generous. So we enumerate the major virtues, trustworthiness, temperance, disinterestedness, and so on. But we can hardly say that all these virtues have anything intrinsic to them in common. No doubt they are all aspects of conduct, ways of behaving; but beyond that, what other similarity do they have? Truthfulness and generosity, temperance and punctuality, what common formula fits them? It may be objected that they all contribute to a single result, that, without approval of these, human society as we know it would not exist. That is to say man, with his remarkable power of controlling natural forces, could not have raised himself to his present pitch of power without the virtues. Further, we may say that certain societies, whose approval of certain virtues is sufficient to make them practise them more thoroughly than others, have been able to extend their dominion over those others, and sometimes indeed, whether from lust of power or from moral horror at the others' depravity, to dash them in pieces like a potter's vessel. Still, all this shows nothing but an extrinsic relational attribute. The virtues are no more alike than the food and clothing are which contribute to the welfare of the body.

Virtuous acts, however diverse in character, may, of course, have something else in common, viz., the approval by such and such a person or such and such groups of people; but this again is an extrinsic character, viz., the identity of their relation to something. Now, our theory accounts for this fact. If certain given virtues are necessary for the survival and prosperity of a given society, then they must be approved of by the members of that society; otherwise it will perish. We can regard what modicum of virtuous approval does exist in human society as being an inheritance from those among our ancestry who showed a random variation in its direction. The strife between man and nature and man and man has gradually eliminated those who show no aversion from idleness, self-indulgence, cowardice, and treachery, and has so altered the average type of the species and of every group within it. Complete moral abandonment seems to occur mostly in pathological cases where the slowly acquired mechanisms of civilization are shed and the soul returns to a primitive state—reverts to the wild. According to this theory the collocation of a particular group of virtues in any individual or in any set of individuals occurs in the same way as the combination of a given group of bodily organs in any individual or species. It is part of an undetermined process in Time.

Our doctrine also saves us the expense of an intuitional theory of ethics, which inevitably is unable to meet its liabilities when two alleged intuitions conflict. Call these the recognition of *prima facie* duties if you will, and take such an example as that given by Mr. H. H. Price (criticizing Mr. W. D. Ross, "The Right and the Good),"[1] the case of a doctor on his way to keep an appointment, who sees an accident and stops (or does not stop) to attend to the injured. He regards both possible acts as morally good, viz., hurrying on to his operation and relieving immediate distress, but unfortunately they are incompatible. No intuition helps him in this case; if his operation is urgent, he is in a serious quandary. Somehow he makes up his mind, perhaps regretting his decision afterwards, according to the type of man he is, which the moral preference of the moment in part reveals and in part creates. His recognition of each *prima facie* duty may be called an intuition, but note how ill-defined the object of this recognition is. The virtuous man approves, say, of truthfulness, industry, kindness, etc., etc., but these qualities of conduct he approves of only "in general," to use a popular expression. There are at least conjectural exceptions in case of which he would not approve even of telling the truth, and it seems impossible to find any formula that would quite accurately show the precise limits of this or any other virtue. Remove these virtues from the full complication of life, *i.e.* treat them abstractly, and we unhesitatingly say we approve of them, but unfortunately the case may occur in which approval is withheld. They are therefore not related to our apprehension in the same way as the universals of Logic or Mathematics. It is simplest then to take the virtues as those modes of conduct which, directly a man recognizes them as being present in an action, he approves of in the great majority of cases. We may go farther than this, and say that each is a quality of which he would approve in any case if, in the said case, its appearance there were not incompatible with the presence of some other virtue of which *in the given case* he approves more highly.

A further point is that our doctrine dispenses within the field of morality of the distinction between good as means and good as end. All moral goods are on the same level. Industry, no doubt, is essential to the continuance of civilized man and those enjoyments open only to him. So, no doubt, are the other virtues. Nevertheless I cannot regard my own existence and happiness, nor that of any society civilized or other as a moral good. Life may be good for those who like it, but there is nothing moral in that goodness. In addition we do not make out that moral goodness is instrumental to non-moral goodness. We have admitted that the existence of society is due to the existence of virtue, but neither have we admitted that the former

[1] *Mind*, No. 159, p. 342.

is a good, nor shall we admit that the approval of any kind of conduct is usually due to the recognition that this virtue is a *sine qua non* of survival. The approval comes first; the survival is usually the blind consequence. Again, everyone knows that we never do decide the morality of any action merely by asking whether it produces a greater final balance of non-moral good, whether that good be pleasure or anything else. If we ever do decide that an innocent man shall suffer for the sake of the whole people, it is because we regard promoting the happiness of the people as a moral good, and prefer it in this case to furthering the happiness of this man. Note the strict limitation to our approval in such a case. Though the death of one human being were to increase enormously the happiness of all the beings on all the satellites of all the stars within telescopic range, we should not regard his slaying as a morally good act. To regard an act as morally good is *not* to regard it as increasing (more than any other) the sum of good in existence.

Another point: our theory renders futile the discussion of intrinsic goodness, *e.g.* of any goodness that consists in some attribute other than the fact that the thing said to be good is approved. The essence of the theory of intrinsic goodness is the assertion that something, though it alone existed, would still continue to be good, and that such a thing is intrinsically good. Pleasure and knowledge are common examples of such intrinsic goods. Now, it is unnecessary to point out that the hypothesis that such things might exist alone all by themselves is fantastic. Our theory holds that even if they did exist alone, such things could not be good, for the approval of them would not exist on which their being good depends. Here, however, we may pass beyond noting that such intrinsic goodness is inconsistent with our theory. We may ask what could be good of which no one ever did or could approve.

Finally, it may be pointed out that our doctrine fits the facts of the psychology of choice better than any theory which holds that, say, pleasure is recognized as an intrinsic good. If that were so, it would be impossible for us ever to shun pleasure, except when a given pleasure was seen to cause (through its disastrous consequences) a diminution of the total balance of possible pleasures. But the fact is that some pleasures are avoided quite irrespective of any such fantastic calculation. Not all who so shun them are hypocrites. A man may have a horror of alcoholic indulgence without ever having experienced the results of inebriation or without thinking how much pain he may cause to those who see him drunk. He does not approve of this pleasure. Further, we have the more unusual cases of an attempt to shun all pleasure or even to inflict as much pain as possible on oneself—masochism. Self-torture is what the masochist likes; it is his good. It is of no avail to plead that these cases are abnormal.

Moral preference cannot employ in them a mechanism totally different from that which operates in what we think morally normal cases. Whatever psychological theory, say of unconscious guilt, may account for the masochist's strange behaviour leaves the moral fact unchanged, that pleasure displeases him and pain pleases.

What is an apparent difficulty for our doctrine is the fact that, as numerous moralists, from St. Paul to Kipling, have pointed out, we often do that which morally displeases us. There is not much difficulty about our attitude to the conduct of others. If we do not like their conduct, we tell them so or act in some other appropriate way, eschewing their company when that is possible if they do not mend their ways, or sometimes, if we have the power, sending them to prison, or even going to war with them. Even here, however, there are interferences with the unimpeded working of approval or disapproval; a partiality for one person may cause us to ignore his faults, an antipathy to another may blind us to his virtues.

Manifestly our own conduct is a function of much more than moral approval or disapproval. Every treacherous inclination may cause us to do things that, even while doing them, we abominate. There is surely no great mystery here. These inclinations are tendencies which were established in the species long before most of the approvals which we call moral ever took root. We inherit them with our blood and bones, but only fitfully the frail love of ideals with its strange magic of an Orphic control of these brutalities.

IV. Summary and Conclusion

This article, for the sake of simplicity, has confined itself to the discussion of the moral predicates good and bad. This restriction has somewhat cramped the exposition of moral considerations, which so often require the equally important terms right, wrong, and duty. For the present the writer must reserve his account of the relations of these latter to good and bad. Briefly, he has attempted to show (1) that there is a real conflict between A's assertion "This is good" and B's "I do not like it." This is due to the fact that A's assertion includes the assumption that B likes or will like what has been proclaimed to be good. Next, (2) it is contended that the assertion of any other attribute involves the assumption of some agreement on the part of the person addressed. Failure to reach an agreement forces us to transform our assertion "This is X" into "The class II has the experience of X character when apprehending this." Science attempts to redefine the X's with which it deals so that the class II shall be co-extensive with all the persons addressed. Such attributes are then styled objective. Good, however, is an attribute which in most of its species fails to be so redefined.

Thirdly, (3) we have shown the consequences of applying the theory that "This is good," in the sphere of morality, is equivalent to "The class II approve of this conduct." It is claimed that it explains both the unity of moral good and the diversity of the virtues, which are shown to be a natural growth like the group of organs possessed by any living species. It is claimed that thus we escape the difficulties of Intuitionism and the absurdities of all forms of Hedonism, and do nothing to obscure the psychology of moral choice.

RIGHT ACTIONS AND MOTIVES[1]

P. LEON, M.A.

CAN actions be right irrespective of the motives from which they come? Can an action be right though coming from a bad or an 'indifferent' motive?

'Right' may be used in prospective consideration, in a would-be agent's deliberation about *agenda*. Thus I may ask: "What ought I to do? What will be right?" Let us suppose that the question is real, that is, that I really want to know what will be right because I mean to do it. Let us also suppose that the answer is: "You ought to pay your creditor, Smith. Your paying will be right." "Now," it may be urged, "you neither ask nor are told anything about motives. You are only told that your paying Smith will be right. In effect you are told that this action will be right whatever the motives." To which the reply would be: "When I have asked the question there has been no motive—for a motive is that which *has* moved, and nothing has moved me—except the general sense of obligation and the desire to find out what now I ought to do; this has moved me to ask. I now wait for only one further motive: the consciousness of the specific rightness of a specific *agendum*. The question is asked and the answer is given, in so far as these concern an action at all, about an action to be enacted from one motive only: the sense of obligation and rightness in general and in particular. In effect I am told and I know not only that my paying Smith will be right, but also that as a matter of fact the part of this which is an action will proceed from the above motive only. Most emphatically is it not a fact that I am told that an *action* proceeding from any other motive will be right. In other words, the question: 'What ought I to do?' is always an abbreviation for: 'What ought I as an honest or just or dutiful or God-fearing man to do?' and the answer is an abbreviation for: 'As such a man you ought to do this.'[2] That is to say, the goodness of the motive is taken for granted both in the question and answer." Nevertheless it is true that the rightness

[1] I shall use 'appreciations' for attributions of truth, beauty, goodness and rightness to indicate that these attributions, heterogeneous as they may be to each other, are yet all 'normative' judgments or attitudes in the sense that the several disciplines dealing with them, Logic, Aesthetics, etc., are all 'normative sciences.' I take it that those who say that right actions need have no value do not deny this and that by 'value' they mean 'goodness.' To avoid confusion, I discard 'value' altogether. Truth, beauty, goodness, and rightness I call positive appreciabilities, and their opposites negative appreciabilities.

[2] Cf. *infra*.

or other appreciability concerning which I, as a would-be agent, expect an answer is not one belonging to or to be conferred by my motives. The young questioner who "had great possessions" was not told that what mattered was his motive, which the context implies was good. Had he been told this, he would have gone away very much puzzled, if not so sorrowful. The would-be agent, in so far as reflection upon motives is possible in prospective consideration,[1] has already finished with this reflection when he asks what he ought to do. He has already taken righteousness into himself, and is now looking for a rightness not to be conferred by, but to fit or express or meet the righteousness operative in him.[2] He is like the writer looking for *'le mot juste'*: that the writer may be able to choose it, *'le mot'* must already have a meaning not given by himself. Yet this is not to say that the would-be agent is considering an *action* which will have an appreciability other than or independent of that of the motive. He is not considering the rightness of an action, motive, agent, the *terminus a quo* at all. He is considering the rightness of the *terminus ad quem*. This, we may say, in anticipation, is the may-be rightness of what may happen to persons or of what persons may suffer.

The case is obviously the same as the above when I ask what another man ought to do. For here, too, I am really asking what ought I to do, only I have put myself in the other man's place. The question is not about me or him, but about any rational, honest, or just person in these particular circumstances.[3]

'Right' may also be used in retrospective consideration of something already done. Do we in this case consider an appreciability belonging to or connected with motives? It depends. We may be interested in the rightness of the *terminus ad quem*, which for the would-be agent is the may-be rightness of what may happen to persons and which now is the actual rightness of what has happened to persons. In that case the consideration of motives is only secondary. We are in the position of the critic who is interested in what is in the work of art rather than in what is or was in the artist's mind. (This is only an analogy and, like all analogies, may be dangerous.) But we may also be estimating the agent, the motives, the action proper, when we should be in the position of the critic estimating the artist.

[1] Is it not true that a man cannot reflect upon his motive until he has been moved, *i.e.* has already acted, just as he cannot reflect upon his thinking until he has already thought? Perhaps we ought to say that there cannot even *be* a motive of his until he has been moved, *i.e.* has acted, just as there cannot be a thought or leap of his until he has thought or leapt. In the case under consideration there can be only the motive operative in the question.

[2] Those who have eyes only for the purity of their own motives are not merely tiresome or ineffectual; they are verily the children of Satan. [3] Cf. *supra*.

I will not treat separately of the case where the agent considers the appreciability of what he himself has done. For here most commonly the preoccupation is overwhelmingly with intentions and motives. It is a self-examination. The agent asks—only, it is true, after trying to appreciate separately the *terminus ad quem*, the situation which has ensued—whether *he* was right in acting thus.[1] He wants to know whether it is really *he* who has done this, how far *he* is responsible. Just as before acting it is difficult and perhaps impossible for him to consider his motives, so after he has acted it is at least very difficult for him to abstract from his motives. (So the artist finds it all but impossible to abstract his finished work from what was or still is in his mind.) Certainly *now* is the time for him to reflect upon his motives. In view of what was discussed above, it is worthy of note that spiritual directors admonish us to examine our motives when reviewing what we have done, but *not* when considering what we ought to do.

Let us look, then, not at ourselves, but at Jones. Let us say that something has been done, something which at first we think we describe correctly by saying that Jones has returned to Smith a book which he had promised to return, and by calling it the fulfilment of a promise. We want to know what appreciability is involved in this fact and where. Now, when considering something done, we are confronted by the whole of history, of what has happened. On what principle do we select for separate appreciation one piece of that continuum, mark it off from the rest, especially from what are called its consequences, treat it as one individual in spite of its multiplicity, call it an action or course of action (essentially the two are the same), and, moreover, an action of Jones and an action of a certain kind, namely, the fulfilment of a promise? Were our appreciation that of jurists, we should refer for the principle in question mainly to the system of jurisprudence and to some particular law or laws. Were it of historians or economists, we should refer elsewhere. In the case imagined, and supposing we are not appreciating in any of the above or similar rôles, where can we find the principle of individuation (if I may so use the term)? Surely there can be but one answer: 'In the agent's own consciousness.' For an action, as Professor Prichard tells us,[2] is a *conscious* origination. It may be, for example, that after Jones had returned the book to his friend, the latter gave it to someone else who used it to bring about a revolution which was nothing but sheer calamity. Yet all this history, so much more significant than the mere returning of the book, we might refuse to take into account in assessing the appreciability of Jones's action, on the ground that

[1] The expression of ordinary speech is significant. Cf. *infra*.

[2] *Mind*, 1912, p. 27.

it was merely its consequences. But once we begin to talk of consequences, we can be brought to realize that the only thing that Jones can himself do directly is to produce a change in his own mind and body,[1] and we might be inclined to call this only his action and to think of all the other things which are normally called parts of or steps in his action as mere consequences, just as much as the calamitous revolution. Indeed, the change in Jones's own body may itself be looked upon as a mere consequence of his *fiat*, the spiritual act which is the act of will proper, especially as in pathological cases an outward physical change is by no means bound or certain to ensue. Are we, then, to include in Jones's action no portion of history external to him in any way? Some portion obviously we must include if we are not to part company with common sense altogether. Where, then, is our principle of selection to be found? In Jones's intention. If Jones foresaw and intended the revolution, and returned the book *because of* this, even if he did no more, then the revolution is not a mere consequence of his action; indeed, his action is the bringing about of the revolution, and the returning of the book is a mere step in this. Even if he merely envisaged the possibility or probability of the revolution, and returned the book *in spite of* this, the revolution is not reckoned as a mere consequence in estimating his action. (Stricter judgment would also take into consideration the possibility of foreknowledge or conjecture by an ideally careful and sagacious though still human agent, a possibility which would indicate in Jones actual carelessness or stupidity. If we wished to point out that Jones's action is at the best only humanly right, we should also consider foreknowledge by omniscience.)

Whatever, then, the *fiat* explicitly or implicitly comprehends (or, ideal judgment might insist, can comprehend), that is comprehended in the action (or at least is not a mere consequence of it). The intentionality or envisagement of the *fiat* defines the limit of the action. And intentionality or envisagement includes motive, purpose, end; while defining the limit means also defining the nature of the action. Thus if Jones returns the book to Smith merely because he is afraid of him, or to win favour with him, or to preserve his own self-respect, or to rid his library of lumber, then his action is not merely returning the book, but propitiating Smith, or ingratiating himself, or ministering to his *amour propre*, or clearing his library.[2] Again, his action

[1] Cf. W. D. Ross, *The Right and the Good*, p. 4.

[2] An action, like a work of art, is generally a very complex organism or structure with many strata. Into each stratum a different motive may enter, and perhaps different motives may enter into the same stratum. Also it is rarely a momentary origination, but commonly a sustained or interrupted and resumed origination. All this adds to the complexity.

can be called a fulfilment of a promise, with the special rightness or other appreciability belonging to such a fulfilment, only if he recognizes (intends or envisages) it as such a fulfilment and realizes what a promise means, that is—how can we help saying it?—if he realizes that the making of a promise involves the duty of fulfilling it, provided there are no circumstances making it a duty not to fulfill it. We may start with an action which we think of as merely the returning of the book; but we soon realize that to judge anything about it, even to decide whether it is an action, and an action of Jones, and whether the action can be called the returning of the book, we have to scrutinize the agent. In that scrutiny we come upon an act of propitiation, a ministering to *amour propre*, a fulfilment of a promise, etc., but never upon a mere returning of the book. We also realize that the relation between motive and action is not like the relation between a billiard cue and ball, but that the agent is the motive, the motive is the action, the action is the motive, and the motive is the agent.[1] An action is an acting of an agent or an agent acting, and judgment upon it is judgment upon the agent. The usage of the English language at least makes this plain. We do not, except in ethical treatises, say that an action is right, but that the agent acted rightly or was right in acting thus.[2] (So also in Greek: δίκαιος ἦν τοῦτο πράττειν.) It is this oneness of agent, motive and action that makes it difficult to understand the position of Mr. Ross. He holds that an action[3] is right apart from its consequences. But he does not tell us how we are to distinguish between the action proper and its consequences, or what part of a so-called action is really to be attributed to the agent. For motive and intention, and perhaps even envisagement, he will not consider. Indeed, the agent is treated as a mere *cause* of his action. But *directly*, it is admitted he is the cause only of some change in his own mind and body. We are not told why so much of what follows this change is included in the action as parts or steps in it, and so much in the consequences only, though the agent indirectly is no less the cause of these than of the steps, and although it is specially pointed out that "a cause produces not only its immediate, but also its remote consequences."[4]

Let us, for the sake of argument, admit that there may be many actions coming from different motives but having in common the returning of a promised book. Let us also admit that what they have in common may be called an action. But there is no evidence

[1] If the motive is the action or an inseparable aspect of it, we can see why there cannot be a motive until there has been an action.

[2] Cf. *supra*.

[3] For his distinction between *act* and *action* see *infra*.

[4] *Op. cit.*, pp. 42–47.

that this is a fit object of appreciation. Many pictures have in common canvas and pigments. But even from the most enterprising Transpontine academicism news has not yet reached us of a *normative* science, Canvasology or Chromatology.

There can be a fulfilment of a promise, I have said, with the rightness belonging to such an action, only if the agent acts from the sense of what a promise means, that is, from the sense of the particular obligation involved. This, applied to all right actions, means that only those actions are right which issue from a sense of obligation. (The sense, however, is specific, and not merely general. It does not preclude, though it renders irrelevant, the agent's desire of the action for some other reason. It does not necessarily imply reluctance or struggle any more than these are implied in the artist and thinker by *their* sense of *their* several norm and 'ought.' It is quite consistent with a *sui generis* desire—if that is the proper term—and glad espousal of the action as a duty and *because* it is a duty.) But if 'right action' is identical with 'the action that we ought to do,'[1] then, when we tell a man that he ought or that it is his duty to do a certain action, we mean not simply that he ought to do it, but that he ought to do it from a sense of obligation or duty, or from a sense that he ought to do it. This is supposed to be absurd. But what else *can* we mean when we tell a man that he ought to do something? 'Ought,' whatever its primary meaning, when used by one person to another conveys an injunction. Since an action must come from some motive, every injunction is explicitly or implicitly addressed to a specific motive or set of motives, to use 'motive' in the loose, popular sense. When we tell a man he ought to do something, to speak the truth, for example, we do not mean that he ought to do this because or from the sense that thus he will get rich or because otherwise he will be punished; if we meant that, then we should be addressing as motives his cupidity or fear; our 'ought' would not be the moral 'ought' at all, the 'ought' of the 'categorical imperative,' but only the 'ought' of the 'hypothetical imperative;' we mean to address his sense of the moral 'ought' or of obligation or duty; the action in question we expect him to do, and we think and say he ought to do from that sense as his motive.[2] That is, of course, if we really mean to speak

[1] This identification made by Mr. Ross (*op. cit.*, p. 3) I accept for the sake of the argument. But language is against it. That only is properly right which has already been done, while one 'ought to do,' presumably, only what has not yet been done.

[2] I fail to see the *absurdum* in Mr. Ross's *reductio* (p. 5): "It is my duty to do act A from the sense that it is my duty to do act A from the sense, etc." Surely it is quite simple to say that it is a man's duty to act from a sense of duty, a sense *hic et nunc* made specific as the sense that it is his duty to do act A. Even if we allow a *reductio ad infinitum* here, not every infinity is

about an action which he as an *agent*, and not as a *cause*, ought to enact. It may be, in prospective consideration, I have argued, it normally is, that we are explicitly thinking not about an agent-motive-action, the soundness of which we take for granted, but about the rightness of what happens to persons, about what ought to happen or *ought to be.*

But 'I ought,' we are told, implies 'I can,'[1] and we cannot help our motives. This no doubt profound principle is one of the most abused and the most confusing in the whole of Ethics. It is interesting to note that Mr. Ross, who appeals to it, proceeds to argue on a line which, if followed up, leads to the conclusion that no impossibility of any kind limits or affects duty. If I have promised to return a book, we are told, then, however carefully I have packed or dispatched it, if through accident or theft it has not come to hand, I have not done my duty and I still have my duty to do.[2] But if it is quite impossible for me to send the book, in this case also I still have not done my duty and I still have my duty to do. And if I cannot send it from a sense of duty because I do not possess that sense, it may still be my duty to send the book from a sense of duty. On the other hand, if we argue that what a man cannot do it is not his duty to do, and that a man 'cannot help his motives' or make effective at will his sense of duty, we arrive at the opposite conclusion that impossibility so limits the sphere of duty that there can be few duties, if any, for few people on few occasions. For most people on most occasions do not naturally want to do their duties, especially if these are difficult. But nothing, it is held, can be done from a negative or from no motive. If, then, it is unreasonable to hold that these people ought to do their duties from a sense of duty (because, forsooth, they cannot make this sense effective), then it is unreasonable to hold that they have these duties; for they cannot do them, since they cannot act from no motive or from simply not wanting to act. If we are not alarmed at this conclusion, it is only because we are apt to think of duty as that which we think out for our neighbour and for the doing of which we provide the motive by applying force. What lies all the time behind this discussion of 'can' and 'cannot' is the truism that force can make a

absurd or impossible. In knowing B, I know (in some sense) that I know that I know, etc., . . . that I know B; in rejoicing in C, I rejoice in rejoicing in rejoicing, etc., . . . in rejoicing in C; in willing to do D, I will to will to will, etc., . . . to will to do D; in getting from X to Z I pass over an infinite number of points in an infinite number of fractions of seconds. Mr. Ross admits that it is our duty to cultivate a sense of duty (p. 6). But it is our duty to cultivate a sense of duty only because it is our duty to have it because it is our duty to act from it at this particular moment as well as at other particular moments.

[1] *Ibid.*, p. 5.

[2] Pp. 45–46.

man act from the sense of fear but not from the sense of duty.[1] Force and fear it is that we really have in view when we say that we can or cannot *make* him act or that he can or cannot *make* himself act. But are we to rest satisfied with the idea that only that is it a man's duty to do which force and fear can make him do?

But in what sense 'cannot a man help his motives'? It may be true and relevant that he cannot help having certain thoughts, instincts, desires, emotions, feelings. But these are not motives. He can prevent them from becoming motives by not acting on any of them. He can then review various possible courses of action until one approves itself as right and as his duty. From this sense of rightness and of duty he can then act, and it is this sense that will be his motive. That he can do this and ought to do this, we must assume about anyone to whom or about whom we use 'ought' at all. This is the minimum assumption, axiom, postulate or faith of Ethics, analogous to the assumption by science of the possibility of knowledge, the intelligibility of the universe, the 'uniformity of nature,' the validity of the 'Laws of thought.'

Only, if we are to get rid of the muddle of popular thinking on this subject, we must be clear as to who 'can' and as to what sort of a 'can' is involved. It is the rational agent *qua* rational agent that can. The Jones who can, who indeed cannot but, see his duty and act from the sense of duty (a sense not supposed to be operative at one time and not at another, a sense which he not merely *has* but which he *is*), is obviously cousin-german to, if not identical with, the Jones who can see self-evident truths and the validity of a syllogism, and who cannot transgress the laws of thought or contradict himself. It is the noumenal, eternal, timeless, universal, perfect, heavenly Jones, made in the image of his Maker, and not the empirical or phenomenal, private, peculiar Jones, the miserable sinner who yields to his passions and sees the right and his duty only to sin against them, and who can as easily contradict himself as he can breathe. It is to the Uranian Jones, though perforce at his earthly residence, that the 'ought' is addressed, in all cases, whether of trivial or of heroic duties. And he can have a sense of duty and act from this sense, just as he can see truths, in a way which, *prima facie* at least, differs from the way in which he can lift weights or swim or fly. (Still, the two ways may be the same, if the moral power is akin to that of faith which can 'remove mountains.') If the above is true, then 'ought' not only comes from Perfection but is also addressed to perfection, and so far is it from being abolished or transcended in God or the Absolute or Heaven that it is there only that it has its full meaning.[2] Also this meaning implies not

[1] Cf. *infra*.

[2] Compare or contrast Professor W. G. de Burgh, "On Right and Good," *Journal of Philosophical Studies*, vol. v, pp. 19 and ff.

only 'can,' but a 'can' which is also a 'cannot but.' Only we must not here think of natural or physical possibility, causality and necessity. Or at least we must not do so until we are able to understand these as well as we understand the rational 'can' and 'cannot but.'

Into the Metaphysics associated with the epithets which I have here applied to Jones simply in order to refer to a problem, it is impossible here to enter. But it seems plain to me that the 'can' or 'cannot but' implied by the 'ought' is in all cases that of pure rationality. If we assert that 'can' in the case of easy duties, we must also assert it in the case of the most difficult duty, the duty to 'be perfect as our Father in Heaven is perfect'; if we deny it in the latter case, we must also deny it in the former. It is because we do not recognize this, and also because we wish to find in the nature of the can involved, a justification for the use of force,[1] that we make a distinction between duties of 'perfect' and those of 'imperfect obligation' or of 'works of supererogation'[2]—a distinction so vague and made so variously by different peoples, different epochs and different classes that it cannot but be suspect—and also a very unsatisfactory distinction between the cases that call and those that do not call for praise or blame or wrath.[3] In the process of making these distinctions and of trying to fix an exact correspondence between possibility and force, 'duty' has lost its native majesty and has come to acquire an odious meaning, or a limitative or purely external or trivial sense, as when we say it is not our 'duty' to try and save a drowning man at the risk of our lives or clothes, or to love our neighbour or indeed to do anything which the law or public opinion cannot or does not compel us to do.

I have laboured to prove that an action cannot be right irrespective of motive, that its rightness is the rightness of the motive and the agent because it itself is the motive and the agent. Yet, with Professor Prichard, Mr. Carritt, and Mr. Ross, I hold that there is something, and something very important, which is right irrespective of motive. Only, I maintain, it is not an action. Thus, if Jones returns to its owner the promised book merely from fear, there is no fulfilment of a promise or any right action on the part of Jones, but something which is right has ensued: the promisee-owner has his book back, and it is right that he, the promisee-owner, should have it back. If Jones pays his creditors from the hope of getting from them later a much larger quantity of goods for which he intends never to pay, or if the representatives of the law sell Jones's property and give the proceeds to his creditors, there is no

[1] Cf. *supra.*

[2] Cf. Rashdall, *The Theory of Good and Evil*, vol. ii, pp. 130–138.

[3] Cf. *infra.*

right action by Jones, but his creditors have their money just as much as if Jones had paid up as an honest man, and it may be right that they, as creditors, should have their money and, further, have it from the pocket or property of Jones, the debtor. If Jones acts as an honest man, the world is enriched by the rightness of his action as well as by the rightness of the treatment of his creditors. But if he does not, the world, though lacking the former, may still have the latter rightness. To an action and an agent, we may say, there correspond—and here we lack a noun which is correlative to a passive as action is to an active verb, but perhaps '*passion*,' in its Latin sense found in 'the Passion of our Lord,' would do—and patients: namely, Society, or a particular person or persons, or the agent's own self (for a man may act on himself just as he may know himself). True, we do not commonly speak of a 'right passion' —but we do speak of 'right treatment'—or of a right happening, occurrence, event or situation. But, as I have pointed out, neither do we commonly speak of 'right actions.' We do say, 'it is right that this should happen or be, this ought to happen or to be,' just as we say, 'it is right that he should do this' or 'he ought to do this.' Lest it be doubted whether a 'passion' or what happens to a person can have any rightness or other appreciability, I hasten to point out that a 'passion' is not a mere physical event or external change, any more than is an action. If the latter embodies or expresses a person's living, the former is embedded or impressed in a person's living. To see that a 'passion' can have appreciability we need only consider how much greater is the significance of the 'Passion' than of the 'Crucifixion.'

It is in the rightness of a 'passion,' of what will happen to persons, or what they may suffer, that a would-be agent is interested, who, *ex hypothesi*, will act from the proper motives into the appreciability of which he cannot and does not at the moment inquire, when he considers what he ought to do. It is of this same rightness that both Professor Prichard and Mr. Ross are obviously thinking when they speak of that which is right irrespective of motives. Professor Prichard[1] is thinking of rightness as it presents itself in the prospective consideration of a would-be agent, in this case a debtor. Obviously the terminus of this consideration, that in the rightness of which the debtor who asks what he ought to do is interested, is not his own motive, as I have pointed out, but a 'passion,' namely, his tradesmen's 'possession' of what has been promised them. Mr. Ross, in the case already cited of the promise to return a book, is not really thinking of the rightness of the agent's action, or he would attach more importance than he does to the agent's intention and to his careful packing and dispatching of the book, though

[1] *Mind*, 1912, p. 27.

this, through theft or accident, does not reach its destination. Mr. Ross is thinking of the rightness of the book's being once more in the promisee-owner's hands. This latter rightness obviously may not occur in spite of the agent's care, and it may occur even if the agent is careless, or even if he does nothing and the book is snatched away from his hands and deposited into the owner's by the wind. Further, Mr. Ross says that it is an act (*actum*, the thing done), but not an action, which is right irrespective of motive. I would say that I mean by 'passion' exactly what Professor Prichard and Mr. Ross mean by 'action' and 'act,' if it were not that: (1) they disconcertingly speak, the one of an action as a *conscious origination*, the other of an act as an *initiation*[1] or *production* of a change, whereas I mean by 'passion' simply a situation which has ensued in conscious lives; (2) while wishing to abstract from motive, they perplexingly refuse to abstract from agent and agency, that is, they insist that there can be 'right' and 'ought' only *because* there may be, is, or has been agency, and that we judge about 'right' and 'ought' only when and *because* we know there may be, is, or has been agency, and that 'ought to be' has not properly a meaning, whereas I claim that if you abstract from motive you must also abstract from agency, but that there can be a rightness irrespective of motive because it is irrespective of agency, by which I mean that some 'passions' at least are and are known to be right in themselves and not because they are or are known to be related to actions and motives and agents, or to right actions and motives, though it may be that to every 'passion' there is an action and to every right 'passion' a right action. I maintain, further, that if the rightness of some actions constitutes largely or wholly the rightness of some 'passions,' in other cases the rightness of the 'passion' constitutes largely the rightness of the action. 'Ought to be,' I hold, can be used of 'passions,' and is, sometimes at least, independent of and prior to 'ought to do.'[2] I mean that these 'passions' ought to be, and we can know that they ought to be, whether there is and whether we know that there is any agent to whom we can say that he ought to do something. Further, it is, partly at least, because these 'passions' ought to be that agents ought to do certain things. It is, for example, partly at least because the righteous ought to be happy that it is our duty to ensure their being happy.

That 'passions' can be thought of apart from actions is clear from

[1] Mr. Ross (p. 7) says the initiation is the act or the thing done, and the initiating is the action or the doing. But who would speak of an initiation as 'the thing done'? On his own showing, 'act*ion*' = 'act*ing*,' 'doing.' Therefore 'initia*tion*' ought to mean the same as 'initiat*ing*.' He ought to use 'act,' *actum*, for the *initiatum* or what has been initiated, *i.e.* the change or new state of affairs.

[2] Contrast Professor de Burgh, *loc. cit.*

a consideration of languages which have different forms for the active and the passive voice, and still clearer from a consideration of Greek, which sometimes uses different words for the passive and the active, *e.g.* ἐκπίπτω for the passive of ἐκβάλλω, εὖ πάσχω for the passive of εὖ ποιῶ. That the rightness of 'passions' is not always constituted and considered to be constituted by that of the corresponding actions can, I think, be seen in the cases already discussed. But we may venture upon more extreme examples of occurrences which we obviously take at first for mere occurrences without any thought of agents or agency, but which we yet deem to have a certain appreciability, whether that is to be denoted by 'rightness' or by some other term. Such occurrences are floods, earthquakes, plagues, the ice-age, inorganic and animal evolution, impinging upon, moulding, and forming part of the history of rational beings. *Because* and *after*, but not *before*, we see their appreciability or rationality, we look for an agent, a guiding Providence or purpose. But that is simply because we think that every occurrence must have a cause and that a rational occurrence must have a rational source; it does not in the least disprove, but rather proves, the contention that we pass appreciations on occurrences (*i.e.* 'passions' in the lives of rational beings) independently of any consideration of agency or motive. It is with these occurrences as with natural beauty. We find beauty in Nature without first thinking of an artist. But beauty is rationality, meaning. Therefore we subsequently infer a rational spirit behind Nature. But if on other grounds we think there cannot be such a spirit there, we do not say that there is no beauty in Nature. We simply remain puzzled.

The above considerations remind us that the principle of sufficient reason may require us to say that correlative to, though not always constitutive of, the rightness of every 'passion' there must be a rightness of an action, though the latter has sometimes to be attributed vaguely to Providence. Further, we must not so separate 'passion' from action as to set up an antithesis no less false and fatal than that between motive and action. The appreciability of some 'passions,' it may be, is wholly constituted by that of the correlative action and motive, as, for example, the appreciability of hearing gracious or insulting words from a foreigner who does not know or mean them to be such, or that of having a gift σμικρόν τε φίλον τε from a loving friend. Or a passion may have many strata and be such that if you take away the appreciability of the correlative action you are left with appreciability only in one or two strata. What intimacy is possible between 'passion' and action we may realize if we consider the difference in our own 'passion' when we are knocked down by a person (*a*) accidentally, (*b*) with intent to do us grievous harm, or when we are beneficiaries of

(*a*) a friend, (*b*) one who wishes to stake out a claim on our lives, (*c*) a self-righteous man or one whose sole interest is to 'acquire merit,' (*d*) a really decent stranger. Or consider how different would have been the 'Passion of our Lord' if it had been without a trial and at the hands of an excited mob or of savages, or if it had been death in an earthquake. There is full rightness when the 'passion' is right and in and because of its rightness is intended by an agent in an enacted action which is therefore right. The 'passion' and action might then be compared to the opposite poles between which an electric current flows, if it were not that no relation is more close or perspicuous than that between the active and the passive. When there seems to be one-sided rightness only, only 'passive' rightness, for example, we must look for the correlative active rightness beyond the immediately apparent action. Thus, when a surgeon gives his services free to a hospital merely as a form of advertisement, his action is that of advertising himself, and as such is not right, though it is right that the poor should have gratuitous treatment. Here the active rightness correlative to the rightness of the 'passion' is to be found in the action of philanthropists who so arrange things that an individual in seeking advertisement must subserve their right purpose, while the action of the surgeon stands merely in an instrumental relation to the rightness of the 'passion.' So the correlatives to the right 'passions' ensuing in connection with the actions of agents possessed only of what Plato calls 'demotic virtue' are not these not fully right actions, but the more remote right actions of the possessors of 'philosophic virtue' who have made a code and inured others to it. In some cases we may have to fall back upon the Spirit or Providence working through Nature or through reluctant unaccepting humans as instruments. More complex seems the case of the wrong 'passion' to which is apparently correlative a right action: Can we say that although it was wrong that Christ should suffer, yet his accusers and judges acted rightly in crucifying him, since they acted from a sense of right? But if it was wrong that Christ should suffer, their sense, which was that it was right that He should suffer, cannot have been a sense of right, any more than the belief that $2 + 2 = 6$ can be knowledge. True, in so far as selflessness and conscientiousness entered into their action it was right. But spiritual blindness also eneered into it and made it wrong. What can be more wrong and terrible than the action of a conscientious and selfless fanatic?[1] It is not enough merely to empty our house of the self; for then, so some have interpreted, we may merely let in seven worse devils. It is true also that here, too, as in the case already considered of the seemingly uncorrelated 'passive'

[1] It may, however, be questioned whether there can be true conscientiousness or selflessness except in properly right actions.

rightness, we must go for the adequate correlative to the 'passion' beyond the immediately apparent action and agents to the spirit or superstitions of the age, or, it may be, to the Devil. But whereas there we said that the immediately apparent action was not right, it is more difficult to say here that the immediately apparent action is not wrong. A further difficulty arises here from the thought that a man 'cannot help' his spiritual blindness, since even if the latter results from his own actions these actions in turn resulted from spiritual blindness, and so on *ad infinitum*. This question of 'can' and 'cannot' we have already discussed. Lastly, perplexity here is increased by the idea that wrong actions call for blame and punishment.[1] But our blame and punishment being generally wrong because of our false notion of what they should be, a feeling of decency makes us wish to exempt from them at least conscientious though spiritually blind actions or agents. On the subject of punishment we have in the case of the Crucifixion the answer of the patient himself. As for 'blame,' if we realize that the only rational element in it is the appropriate, rejective declaration that evil and is evil and the not-perfect not perfect, we shall not be deterred by any misunderstanding of 'can' and 'cannot help' from 'blaming' in the right spirit and with the right meaning, any more than we are deterred by it from expressing literary or artistic criticism.

This paper leaves untouched the question of the relation between the right and the good, although it might seem that I have reduced everything to the good. For, it might be objected, right actions as here defined are simply good motives or good motive-actions, while right 'passions' are simply good consequences or effects This objection, I think, would not be true. But even if it were, it would still be important to have shown that by 'right apart from motive' we can denote only consequences or effects. Before we can tackle the antithesis between the right and the good it is absolutely necessary to make clear what it is that can have rightness or other appreciability apart from motive. This I have here tried to do.

[1] Cf. *supra*.

EVERYDAY PHILOSOPHY OF THE TURKISH PEOPLE IN STAMBUL

Professor A. HILMI ÖMER

Until the very recent days of the Turkish Republic, when every effort is being made to adopt the ways of Western civilization, it has been the picturesque and wellnigh universal custom for shops to carry on their walls small placards, usually framed, and these placards have contained in beautiful Arabic writing verses from the Quran, traditions of Muhammed, rhymed and unrhymed sayings which have for generations been passed down from father to son. Coffee-houses, barber shops, booksellers, grocery stores, pharmacies, candy stores, fruit-stands, private houses even, all have decorated their walls with more or less artistically copied bits of wisdom from the past. In general there is no record of the authors or sources from which the sayings have come. They reflect in some measure also the thought of Turkish society as that thought has been passed on through the centuries. In order to get a picture of social relationships in the old Ottoman state it will perhaps be of value to study these texts and learn what we can from them of the social life and ideals of everyday folk in Constantinople from the earliest days down to the period which is just passing. There was a close relationship between these mottoes and their owners. The mottoes reflected in the first place the life philosophy of those who wrote them, and they served to mould the attitude toward life of successive generations. Not only religious belief, but attitudes toward the world and its problems, toward methods and standards of business dealing, are all touched upon in these texts.

Since, so far as my knowledge goes, no Eastern or Western Orientalist has made a study of these mottoes, this brief research will perhaps be of some interest.

A cursory consideration of the ideas contained in those mottoes is sufficient to indicate the great social changes which have occurred in Turkey, where the Orient is now being left behind, as all eyes are turned toward the West, its thought, its standards, and its whole technique of life.

One notes first of all that shops contain not just one motto, but frequently have several, often presenting a very interesting combination of ideas. I have gathered together these brief mottoes, which date from different periods, from every quarter of Stambul,

and I have classified them in accordance with the main ideas which they reflect, giving such explanatory notes as seem to be needed.

The favourite mottoes found either over the door or inside the shop are these, both in Arabic:

In the name of God the merciful, the compassionate.

God loves those who earn.

Found as a favourite also, but only inside the shop, is this, in Arabic:

Food and necessities are guaranteed by God.

Frequently found also are the following:

Verily, we have given thee an obvious victory.[1]

O Lord, make it easy. Do not make it too hard.
O Lord, may everything end well.

According to Mohammedan belief, it is not worth while to be anxious about the food problem. This is a matter which in a peculiar way belongs to God, whose duty it is to feed mankind. Disaster and adversity in business as well as hunger are looked upon by Moslems as signs that God has withdrawn His favour. Consequently favourite mottoes found nearly everywhere are such as the following:

Do not be troubled about the necessities of life;
Consider the saying "We distribute."[2]
Feel not unnecessary hurry;
Consider the Lord who is rich.

Or

Beware, do not lose hope, your necessities come from God.
Think of yourself, O ignorant one, He created you out of nothing.

Or

A sigh cuts off the prosperity of the oppressor;
God cuts off the necessities of the one who prevents others from getting the necessities.

Or

Heaven forbid that God should oppress one of His bond servants;
Whatever one has to endure is his own punishment.

Or the following found in the store of a butter-milk-seller (*ayranji*) at Beyazit Square in Stambul:

[1] From Quran, Ch. 48: 1.

[2] Quran 43: 30–33. "Is it they who distribute the mercy of thy Lord? *We distribute amongst them their livelihood in* the life of this world, and we exalt some of them above others in degrees, that some may take others into subjection: but the mercy of thy Lord is better than that which they amass."

God makes the crescent into the full moon, the full moon into the crescent.
Since He has this power, if He wishes, He can make a month be a year.
Be of the People of Love; the World was established by Love.
He who does not know this is ignorant; he speaks but gossip.
Win victory over the things of the world; do not regret poverty.
He makes the beggar to become a King; the King in a moment he puts under foot.
My God, make me not in need of help from an unworthy man, nor even from a worthy one.
At your door Fikri[1] always thus makes his petition.

In coffee-shops and in the stores of coffee-dealers the favourite mottoes are selections from some patron saint, for example:

Every morning our shop opens with an "In the name of God."
Veysel Karani[2] is our patron saint and master.

And

Every morning our shop opens with an "In the name of God."
Mesud[3] is our patron saint and master.

Other placards have to do with the problem of securing cash sales. The following was found in a Greek tailor's shop near the Constantinople Gate:

I cannot sell on credit.
I cannot follow you up.
If I try, I cannot find you.
If I find you, I cannot collect.

The following is of similar report:

Foolish is the man who lets the bird out of its cage,
Thinking it will return.
To-day sales are cash;
To-morrow they will be on credit.

This world being conceived of as purely transitory, all prosperity is temporary and unimportant. It is therefore not worth while to put one's trust in riches or in power or in any earthly thing. One should remember always the hereafter for which this world is a preparation.

[1] The name of the poet who lived in the sixteenth century.

[2] A famous Arabic saint from Yemen, a contemporary and great lover of Muhammed. According to tradition, when he learned that Muhammed had lost some teeth in the Battle of Uhud he pulled out *all* his own teeth so as to be sure to have extracted the exact teeth that would correspond with the ones lost by Muhammed. The saying among the common people in Stambul, "Veysel Karani, from the land of Yemen," means, "he has nothing at all." Veysel Karani was killed in battle in 37 A.H. Coming from Yemen, a well-known land of coffee, his appropriateness as a patron-saint of coffee-houses is apparent.

[3] Mesud was a companion of the Prophet.

Wealth and power, silver and gold are never anyone's forever.
Real merit is in healing a broken heart

The transitory world is pleasing;
If only there wasn't death at the end!

The light of Paradise is pleasing;
If only there weren't the pains of Fire!

I don't know in what the joys of thy heart are found.
Is the pride of thy heart in the world?
What you call the world is only the false dawn.
Its joy vanishes like a dream.
Joy and happiness are but for a day.
Every day there are evils with raucous noise.
If you fly into the air like Solomon,
Some day the earth will of necessity consume you.

It is your portion of food and drink which makes you wander from place to place,
Tho' like a bird you mount up to the heavens, the earth at last will consume you.

There is no rest in the world (Arabic).

The World is a field sown for the next World (Arabic).

This World is a mill, it is ceaselessly turning,
The eye of man is a lantern, in the end it will go out.

The heart is what God looks at.
Tear not down the heart of anyone.

Let come those who look on, there is no place like this.
Some come, some go. It is a home for no one.

Oh ignorant one, be not deceived by your stature;
This is a passing world.
It itself is apparent, its fire is hidden.
It is a burning furnace.
One doesn't know those who have come and gone.
It is an Inn with two doors.

In every enterprise of man one must trust completely in God. Any aim that is reached by force is worthless because God's will will eventually be done in spite of appearances, and the success of a moment cannot be counted on to last. Since the will of God

is destined to rule over every measure of man, it is best to submit one's will to God and to entrust every human affair to God without sadness or anxiety, even though adversity result. The following mottoes express this type of philosophy:

Do not be impatient; take thought, endure everything;
God's plan breaks up other plans; trust therefore in God.

Whoever attains his goal by force,
Surely someday the force of fate will yet be manifest.
Surrender all thy cares to God, neither worry nor be anxious.
If you are wise listen to me, accept my word as a precious stone.
Real merit is found in turning suffering to joy.
Thus come and go the sorrow and joy of fate.

The one who believes in Fate is free from sorrow.

I trust in God (Arabic).

When God shows Himself, He makes all things easy.
He creates the causes, and in a moment grants the result.

When God wishes to carry out a creature's wish,
He enables his teeth to cut thru marble.
When God does not wish to carry out a creature's wish,
He breaks his teeth even when eating milk pudding.

The will of God cannot be turned aside by the strength of the arm;
A candle which is lit by God can never be put out.

This is from the abundance of my God (Arabic).

Other mottoes urge human beings not to despair if things don't go well at first, but to wait for God, who may bring a good result out of one's distress. Trust always in God and in His prophets. Essentially all adversity comes from sin against God:

Night vanishes, dawn always comes,
Thru defeat at length victory comes.
All nights give birth to sorrow and gladness;
Before the dawn comes what may not arise!

My desire from the two worlds is in God;
My hope in the day of judgment rests in Muhammed Mustafa.

Mercy, O thou glory of the Universe (Muhammed).

The word mercy is the same as Thy holy name,
That is why the lover praises Thee with the word "pity," Apostle of God.

I an drowned in the ocean of sin;
Thou art my refuge, O apostle of God.

The fear of God is the beginning of wisdom.

If the oppressor has his cruelty,
The oppressed has his God.

If you wish to have a friend in the world, God suffices.
If you wish to have a perfect guide, the Quran suffices.
If you wish to have prosperity, contentment suffices.
If you wish to have good advice, death suffices.
And if these are not sufficient, the fire of hell suffices.

Oh God, is my desire not known to Thee?
Or is it that Thy majesty is unable to grant it?
Is there any obstacle to cause Thee to withhold Thy gift?
Is it because crying out to Thee does not move Thee?

Tho' they flay me, and no skin is left on my body,
I will not cease loving Ali. A Haydari am I, a Haydari.

Humanity is a gift from God, not to be obtained by instruction. To be under obligation to a man who is unworthy of being called a man is a very bitter thing. It is better rather to lose one's life.

Cross not over the coward's bridge; let the water carry you off,
Sleep not in the fox's den; let the lion carry you off.

Humanity is a gift from God; it is not for everyone.
You cannot ennoble the ignoble; even if you educate him a hundred thousand years.

The wolf's cub in the end becomes a wolf,
No matter how high is his degree (Persian, from Sadi's "Gulistan").

He who goes slowly reaches his goal.
The garment of the skirt of him who walks fast entangles the feet.

To seek the average in all things is the best thing to do.

Sleep not in low places, the torrent may carry you away,
Sleep not in high places, the wind may carry you away.

Contentment is a treasure that never passes away.

Honour the contented, despise the gluttonous.

Oh, thou who art patient! (Arabic).

The patient dervish receives his desires.

Through patience sour grapes become sugar (Helva).

The patient one wins the victory.

If speech is silver, silence is gold.

The safety of Man is in holding his tongue.

According to some mottoes, the example of Mohammed is presented as a reason for being clean-shaven:

Glory and thanks be to God, who gave us this prosperity;
The name of our leader is Solomon the pure;
This perfect and pure person is also the barber of the Prophet;
Don't be indifferent, come and be shaved, and carry out the tradition.

Cleanliness is a part of one's Faith (Arabic).

With regard tc the selecting of one's friends, the following indicate that one should take great care:

Wear not yourself out by losing your heart in vain.
Betray not your secret, thinking every one you meet is your friend.

To have a real friend means paradise on earth,
To be with a disagreeable person is like the fire of hell.

From the very beginning,
All the relatives we have become scorpions.
The things that relatives do to one another,
Scorpions would not do.

A man's philosophy of life should be such as this:

Do you remember on the day you were born,
The world laughed while you cried,
Live such a life
That your death may be a joy to you but a mourning to others.

The following motto presents a curious philosophy of the world:

The course of the world is built on four things;
Let me eat, but don't you eat;
I am good, but you are bad.

The following motto is a masterpiece of selfishness:

Do not put yourself into inconvenience for the sake of others.
Light your pipe, tend your own pleasure.

At pharmacies and certain other shops the following motto preaches the gospel of the healthy life:

There is nothing in the world that is as unworthy as prosperity;
There can be no greater prosperity in the world than the breath of health.

The following motto, also relating to health, is attributed to Mohammed:

In bitter medicine there is health (Arabic).

PHILOSOPHICAL SURVEY

PHILOSOPHY IN ITALY

N. Abbagnano has made a wide and exhaustive study of the philosophy of William of Ockham.[1] He has tried to withstand the tendency, generally prevalent in the history of philosophy, to consider Ockham's personality as balanced between the old scholastic and the modern philosophy, and his works as a strange medley of formal subtleties and of profound intuitions born of genius. He has tried to represent him as a thinker with decided leanings towards the modern era, the initiator not so much of nominalism as of English empiricism, and therefore the precursor of Locke and Hume. To carry out his task he was necessarily obliged to dwell on the more positive and reconstructive part of Ockham's writings, neglecting those parts where the Franciscan doctor hesitates and gropes among the old discussions of scholastic formalism. This tends to spoil the balance of the historical reconstruction; but at the same time it must be granted that the newer and more positive parts revealed by Abbagnano's shrewd analysis have an impressive modern trend, not composed of sporadic ideas and vague anticipations, but forming a coherent and organic whole. For the author, nominalism is only the negative moment in Ockham's epistemology: the doctrine of the concept as symbol (*suppositio*) necessarily presupposes the positive moment, empiricism. The empiricism finds its point of departure in intuitive consciousness, defined as consciousness which allows us to affirm or deny immediately the reality of the object, without the interposition of a *species* between the thought and the things. Opposed to intuitive knowledge there is abstract knowledge, defined as knowledge which leaves out of consideration reference to reality; consequently it is incapable of making us aware of what is not already drawn from experience. The Ockhamist vision of knowledge which is deduced from these premises—as a context of signs or symbols, which are true not because they are the subjective reproduction of an external reality, but because they stand in place of real things—seems therefore to the author much further from the realist mentality of medieval philosophers and nearer to the modern conception of knowledge.

This empirical orientation dominates and colours Ockham's entire doctrine. One of the first restrictive and negative results concerns theological conceptions: if the origin of our knowledge is experience, it is impossible that man should have knowledge of divinity, and thence rationally affirm its existence. He follows up with a powerful criticism of the traditional proofs of the existence of God, and reduces the principles of religion to mere beliefs. Similarly the internal logic of his empirical orientation led Ockham to anticipate clearly certain results which the analyses of the English empiricists from Locke to Hume were to bring to light, primarily the criticisms of the concepts of substance and causality. And in effect final causality is explicitly excluded by Ockham; but his interpretation of efficient causality is liable to several reservations. On the one hand it approaches Hume's interpretation, on the other it allows the old dogmatic use of causal relations to survive.

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[1] N. Abbagnano, *Guglielmo di Ockham*, Lanciano, Carabba, 1931 (8°, pp. 392).

Abbagnano was led to a study of Ockhamist physics by the classical researches of Duhem. After the destruction of the old theological world there comes, with Ockham, a new cosmic vision in which the concept of the infinite holds first place. However much a teleologically ordered world must be confined to clear and precise limits, no such exigency exists for a world deprived of all design and preordination. Hence against Aristotle Ockham vindicates the relativity of cosmic prospectiveness and the non-existence of absolute directions in space, so that Aristotle's arguments against the plurality of worlds lose all meaning. With infinity, too, the idea of the eternity of the world presents itself, finding its polemical complement in the *Centiloquium* in a compact *reductio ad absurdum* of the creationist thesis. One must however add that Ockham ascribes simply the value of logical exercises to these concepts of his. His prudent declarations are not to be taken literally; but no one can say that the theses he has formulated represent the fruit of a mature conviction, because they are often contradicted by other views which lead to the opposite theses. This interesting book closes with a chapter on Ockham's anti-papal politics, studied in its principal documents (the *Dialogue* and writings published by Scholtz), which find their niche in the history of the great fourteenth-century conflicts between the papacy and the empire. This part, compared with the others, deserved somewhat fuller treatment.

Calogero's recent studies[1] on the Eleatic School are a sample of a larger work on the history of ancient logic which he has been considering for some years. In them he examines the doctrines of the principal exponents of the Eleatic School, Parmenides, Melissus, Zeno, and the doctrines of the idealist followers of the school: Gorgias, on the negative and critical side, forming the premise of its sophistic conception; Plato, with the dialectic exercises contained in the dialogue dedicated to Parmenides. To the understanding of the philosophy of Parmenides Calogero means to contribute a new interpretation (at least in its development if not in its initial motive) of the two famous fragments on the identity of being and thought, round which a battle has long been fought by the partisans of the idealist interpretation (which tries to resolve being in thought) and the partisans of the realist interpretation (which tries to resolve thought in being). Calogero looks upon them both as being historically premature, and suggests a third which represents a kind of identity not differentiated from realism or idealism, at the root common to both of them. The first of the two famous passages (included in the 8th fragment) is usually understood in the sense that "thinking and that by virtue of which it is thought are the same thing" (*sic*). Calogero, however, reading *οὕνεκεν* as a reinforcement of *ὅτι*, explains thus, "to think a thing is identical with thinking that it exists." As for the other passage (5th fragment), which is usually understood as "thinking and being are the same thing," Calogero suggests that instead of reading it detached from the context it should be read in connection with the passage preceding it and the passage which ought to follow, for which, since it is lacking in the original, Calogero gives a plausible rendering. So that now it reads: "That which does not exist I can neither think nor state; thinking is the same as asserting that (that which I think) exists." The words in brackets are suggested by him to complete the sentence. In this way the doctrine of Parmenides is revealed as an immediate transmutation into ontology of logical being expressed by thought. The hypothesis is not improbable, but considering the scarcity of the fragments

[1] G. Calogero, *Studi sull' Eleatismo*, Roma, Tipografia Bardi, 1932 (Pubblicazioni della Scuola dell' Università di Roma) (8°, pp. 264).

of Parmenides it is no less disjointed than the preceding hypotheses in its attachment to the remaining parts known to us of the doctrine of the Eleatic School, and particularly to the representation of the globe, which it is difficult to take in a sense that is not frankly realistic. Calogero, a highly skilled interpreter, tends too much to force the logical connections between breaks and lacunae in the fragmentary passages. In this way he gives the impression of wanting to read more into the text than could possibly be found by an interpretation freer from systematic preoccupations. This observation is valid not so much for his interpretation of Parmenides, which is the closest of them all, as for his interpretation of Zeno, where he has apparently tried to rival the Eleatic sophistry. It is obvious that Zeno's arguments against motion start from an implicit presupposition of an infinite divisibility of space. Whether Zeno had meant to specify the Pythagorean doctrine in this presupposition and hence to attack it would be another matter, which we cannot decide through lack of documents. Now Calogero claims to destroy in one blow both Zeno's anti-Pythagoreanism (supported by many historians) and the spatial presupposition which forms the immediate objective of the polemics. But the two are dissociable, and, not wanting to dissociate them, Calogero is constrained to tack on an artificial and complicated woof, entirely superfluous to the design. It is perfectly plausible to admit that even without having received it from others Zeno had intuitively conceived for himself the idea of an infinite regression in the division of the parts of space, and used it as a weapon against the conceivability of movement. In spite of these defects (Calogero at times transgresses through too much acumen and a tendency towards hypercriticism, that is, by emphasizing too much one of his special qualities) the book he has published is a very notable contribution to the history of pre-Socratic philosophy. The position of Melissus and Zeno with regard to Parmenides is clearly outlined, and much light is thrown on the disconcerting Platonic dialogue that bears the name of the great Eleatic teacher.

A book by CHIAVACCI bears the suggestive title of an antithesis between *reality* and *illusion*.[1] But a reading of it synthesizes the antithesis in a third term unforeseen by the author—delusion. And that exactly sums up the impressions of the reader. Chiavacci, a follower of the so-called "modern idealism," gives to illusion a much larger part than a judicious person would be disposed to allow. Indeed, since for him reality is all condensed in a mystic and ineffable thought in act, it is natural and inevitable that he should be drawn to imprison in the world of illusion all that common humanity considers real. For example he says: "Philosophy which rises with the single aim of sweeping away illusions actually reconfirms them in a thousand ways, forgetting its philosophical essence by transforming itself into intellectualistic science. And thus even to-day there are those who speak of matter and spirit, those who speak of knowing as distinct from doing, of art as distinct from thought, of morality as distinct from economy. Such distinctions are well enough in the world of illusion, but they fall together when you think of true reality, which consists in a unity transcending such distinctions." Further on he asks: "But how then are we to distinguish art from religion and both from philosophy? We believe we can reply: Where is the need and the desire for such distinctions? Is it not the part of a philosopher to seek unity? Often he strives to unite by main force things utterly different and opposed to conciliation. Here, in fact, where identification appears so clear and

[1] G. Chiavacci, *Illusione e realtà*. Saggio di filosofia come educazione. (La Nuova Italia Editrice, Firenze, 1932, 8°, pp. viii, 284.)

spontaneous, making one whole of morality, art, religion, philosophy, where is the need to distinguish?" Further still, even history, with its belief in progress and civilization, suffers the same fate of being driven into the world of illusion. In the end you stop perplexed, as when you hear someone condemn the whole of humanity as mad, except himself, who will be the only sane one. Is it not more sensible to transpose the signs and send that one person to the madhouse, rather than make a madhouse of the whole world? Similarly with Chiavacci, it would seem much more sensible to restore his supposed illusions to the world of common reality and to qualify as illusory only that pure act which in reality concludes nothing at all, and which has the appearance of doing something in just so far as the supposed world of illusion offers it, without its pretending to be aware of it, a little coal to burn, or a penny to spend.

GUIDO DE RUGGIERO.

(*Translated from the Italian by* CONSTANCE M. ALLEN.)

PHILOSOPHY IN RUSSIA

SINCE 'dialectical' materialism was proclaimed in Soviet Russia to be the only true conception of reality, the red philosophers found themselves in a worse plight than ever. They have now to guard against the pitfalls of 'mechanistic' materialism on the one hand, and of idealism on the other; and as by 'idealism' Soviet writers mean almost anything opposed to their own views, it is easy enough to detect traces of it in any thinker. The wide field thus opened for mutual recriminations, accusations of deviating from 'the general line of the Party,' etc., makes any genuine philosophical work even more difficult than it was two or three years ago. There is a marked decrease in the number of philosophical publications. According to the *Knizhnaya Letopis* (a U.S.S.R. weekly bibliographical survey), all that has appeared in the philosophical line during the last six months of 1932 is a new translation of Spinoza's *Letters*, a reprint of an old translation of his *Ethics*, and a few dozen small textbooks on dialectical materialism, published by various schools, such as the Leningrad School of Engineering, the Leningrad Electro-Mechanical School Combine, and so on. The editorial board of the journal *Psychology*, which has existed for some years, announces that their programme "is entirely determined by Lenin's principle of observing party considerations in scientific work"; they are resolved "to champion the heritage of Marx and Lenin and to assign psychology a practical part in the building up of a socialist state." Experimental investigations published in that journal are chiefly inspired by practical considerations and subserve the ends of the Communist party. Thus, for instance, in an article on books for children (*Vneshneye oformlenie detskoi knigi*, 1932, N. 4, p. 16), the first conclusion drawn by the author from the observation of a child's reactions to a picture is that "these reactions show a definitely proletarian class-consciousness."

It has been pointed out by Berdyaev in an excellent article, quoted at length in the preceding survey, that dialectical materialism is a jumble of inconsistencies. Matter is endowed with such a wealth of spiritual qualities that it might more suitably be called the world-soul. It seems strange that any thinker can be satisfied with a theory full of such glaring self-contradictions, but apparently the attraction of dialectical materialism is due to the fact

that its conception of matter as a vital moving force behind events, ever creating new forms of life, appeals to the imagination of those whose one idea is to build up a new social order. A curious book, recently published at Harbin, in the Far East, throws an indirect light on the faith that lies at the back of dialectical materialism. The book is by Professor Setnitsky, *O Konechnom ideale* (*The Final Ideal*), 352 pp.

Setnitsky is a Christian, and does not, of course, accept the metaphysics of the Soviet philosophers, but, like them, he has an unbounded confidence in reason, in science, in man's power to overcome the irrational forces of nature, and to create an earthly paradise. He thinks that if only man's creative activity, leading to the deification of life, became collective instead of merely individual, humanity could realize the fullness of divine perfection here on earth. Setnitsky is a disciple of N. F. Feodorov, whose chief work, *Filosofia obshchago dela* (*The Philosophy of a Common Task*), is being reprinted in Harbin. Feodorov died in 1903; in his lifetime he was almost completely unknown, and had no influence whatever. Some twenty years after his death Berdyaev wrote an article in which he spoke very highly of Feodorov's work; since then Feodorov's ideas gained more and more ground, and now he has a body of followers. He is little known outside Soviet Russia and the Far East, largely, no doubt, because his books are out of print and practically unobtainable. So far as one can judge on second-hand information, Feodorov's philosophy seems to have been inspired by the Christian idea of universal resurrection. He looks for the union of mankind in the only cause which is capable of uniting all men, namely, the overthrow of the common enemy, death—and not only of death for us ("the sons"), but for all men, including our ancestors ('the fathers'). The way to achieve this end is to bring about a synthesis of theoretical and practical reason and to make the blind and hostile forces of nature subservient to man. Becoming one in many, as God is One in Three, mankind will reach such a unity that any falling away from it, as in death, will be impossible. Feodorov's admirers say that his ideal is not to bring heaven down to earth but to raise the path of man to heaven; it is hard, however, to avoid interpreting his conception as a sort of millennium. Man, he thinks, will learn to control climate and to dispose of atmospheric electricity at his will; mastering the electro-magnetic energy of the earth, he will be able to direct the course of our planet, and it will be possible for him to inhabit other planets and heavenly bodies. The social order of the future will be based upon a unity of knowledge and action. There will be no division into classes, into those who direct and those who obey; every individual will freely carry out his duty, conscious of the necessary task before him.

Summarized in this way, Feodorov's theory certainly sounds fantastic—to put it mildly; but quite intelligent people think highly of it, and there is no doubt of its gaining hold on the Russian mind. Soviet writers seldom mention Feodorov by name because of his strong religious bias, but they share his faith in man's power to subdue nature and to create a new kind of existence. Many bold plans of the Soviets remind one of Feodorov's dreams by their scope and daring—for instance, the plan, recently discussed in the Soviet Press, of raising the temperature of Siberia by diverting the course of the Gulf Stream, and of shifting the Polar icebergs so as to freeze England out of existence.

Feodorov's ideas undergo a considerable change in Setnitsky's presentation. Setnitsky is more rationalistic, less concerned with our duty to the dead than with the problems of social reconstruction; but the main idea of the blissful and immortal existence being attainable for all is the same in both writers.

PHILOSOPHY

Several articles of philosophical interest have appeared in *Put* during the last six months; among the best of them are Vysheslavtsev's "The Tragic Aspect of the Sublime," Berdyaev's "The Old and the New in Christianity," and S. Hessen's clever analysis of Dostoevsky's novel *The Possessed* as a study in the problem of evil. The attempt to read a philosophical system into Dostoevsky's work strikes one as somewhat artificial, but his novels certainly provide Professor Hessen with an opportunity of expressing many brilliant and profound thoughts. Apparently, the philosophical way of approaching Dostoevsky is popular in Germany, and Hessen's booklet on *The Brothers Karamazov* is much appreciated in that country.

NATALIE DUDDINGTON.

NEW BOOKS

The Expanding Universe. By Sir Arthur Eddington. (London: Cambridge University Press. 1933. Pp. vii + 128. Price 3s. 6d.)

Sir Arthur Eddington is always a delightful writer, and in this little book he is more delightful than ever. He is explaining the new theory according to which the universe is continually expanding. He does not claim any certainty for this theory, but he sets forth the evidence lucidly, amusingly, and imaginatively. As everyone knows, the evidence is of two very different sorts: first, it was found that it would be convenient for the theory of relativity if the universe were expanding; then it was found that in the spectra of the most distant nebulae there is a shift to the red which is roughly proportional to their estimated distance. Much the most natural interpretation of this shift is to attribute it to a motion of recession. The book begins with a frontispiece showing a nebula in the Great Bear, whose distance is supposed to be 1,300,000 light-years, and whose receding velocity is 300 km. per second. There are some people who explain this recession of distant nebulae in an attractively simple fashion. They think that once upon a time everything was packed up close together, and that only objects which moved away very fast have managed to get to a very great distance. But there are reasons against this view, and the relativity explanation is the only one that at present has any real plausibility. As everyone knows, the original Einsteinian law of gravitation was

$$G_{\mu\nu} = 0$$

but this was subsequently amended to

$$G_{\mu\nu} = \lambda g_{\mu\nu}$$

The constant λ is called the cosmical constant, and turns out to be capable of giving an astonishing amount of information. It tells us how big the universe was when it was created, and also tells us a great deal about the structure of the atom; it tells us how the universe grows, but does not tell us how long it has been growing.

It must, of course, be understood that space is no longer infinite as in Euclid, but is the three-dimensional analogue of a sphere. The universe is to be conceived as a bubble growing continually bigger until it bursts. Sir Arthur thinks that it has not burst yet, but that it will do so before very long. It will have burst when it is no longer possible for light to travel from any one part of the universe to any other. Sir Arthur, as usual, gives an admirable illustration. Suppose a number of men run in a handicap race towards a winning-post which is moved away from them with continually increasing velocity. At first they run faster than the winning-post, but afterwards more slowly. The ones who start nearer the post may hope to catch it up, but the others will get farther and farther from it, however long they run. If we replace the men by light signals, and the winning-post by the observer, we see that light signals which start late will never reach the observer. As nothing can travel faster than light, different parts of the universe will, in the end, be permanently cut off from each other. The various nebulae will each go on as before, but in isolation from everything external to themselves. Shelley says:

"Worlds on worlds are rolling ever
From creation to decay,
Like the bubbles on a river,
Sparkling, bursting, borne away."

Eddington's book consists of a scientific account of this process. It is impossible for a layman to judge as to the reliability of some of the figures which he gives, but it is pleasant to think that estimates of such matters are even possible. He maintains that the initial radius of the universe was 1,068 million light-years, that the total mass of the universe is about 10^{22} times the mass of the sun, and that the number of protons in the universe, which is the same as the number of electrons, is about 10^{79}.

Eddington does not seem to believe in a definite moment of creation. He thinks that for long ages there was approximate equilibrium between the mutual gravitation of the parts of the universe and the expansive force. It was something of a chance which of these got the upper hand, but at last the expansive force obtained a slight advantage. Very slowly the advantage increased. The expansion began to grow swifter, and will go on faster and faster apparently to the end of time. Eddington thinks that it is only 10^{10} years since the various galaxies separated from one another. The received view is that the universe doubles its radius every 1,300 million years, so that it cannot have been going very long.

At the end of the book there is a fascinating chapter relating the cosmical constant, and the number of electrons and protons in the universe, to the properties of hydrogen atoms. I am quite incompetent to form any opinion about this chapter except that I could wish it to be true. At one point at least it is capable of a somewhat stringent experimental test. Sir Arthur maintains that the constant $hc/2\pi e^2$ is exactly 137. If there should be good evidence that this is not the case, Eddington's theory on this point would break down.

I am not competent to criticize Eddington, and while reading him I have no wish to do so, but I am left at the end with an uncomfortable feeling that we cannot possibly know as much concerning the universe as a whole as is implied by some of the developments of the relativity theory. The observational basis is so very much narrower than the inferential superstructure that one's capacity for credulity in the end gives way. Herbert Spencer, if I remember right, used to maintain that a short argument should be given more weight than a long one, since there is risk of error at each step. For my part, I cannot believe that there is any real evidence as to the total number of electrons in the universe. I do not mean that I have detected any fallacy in the argument; I mean that it is the kind of argument of which I feel an *a priori* suspicion. Nevertheless, for the glory of the human intellect, I hope that Eddington is right.

BERTRAND RUSSELL.

David Hume. By B. M. LAING, M.A., D.Litt. (London: Ernest Benn Ltd. 1932. Pp. xi + 273. Price 12s. 6d.)

This volume is a member of the series of monographs on the philosophers who have mainly influenced Western thought, of which Professor J. L. Stocks, of the University of Manchester, is editor. It need not be said, therefore, that the printing is excellent, and that the plan of the book is sensible.

It opens with a full and interesting account of Hume's life and character, occupying some sixty-eight pages, and continues with an interesting and in parts original inquiry into the sources and influences out of which Hume's philosophical thinking grew. Mr. Laing follows and advances the recent reaction

against the traditional theory according to which Hume was little more than the remorseless continuator of tendencies latent in the writings of Locke and Berkeley; and he not only stresses with, *e.g.*, Professor Laird the importance of the influences of the French philosophers and writers such as Montaigne, Charron, Bayle, Pascal, Malebranche, the Port Royal, Crousaz, etc., but regards as of determining moment the tradition of scepticism which began with the Epicureans and Stoics, is found in Cicero and was most fully developed by Sextus Empiricus. This tradition was revived partly by Montaigne and considerably by Bayle, and Huart had recently (1725) translated into French the "Pyrrhonian Hypotyposes" of Sextus Empiricus. Mr. Laing, both in the chapter specially devoted to the sources of Hume's views and in his direct exposition of Hume's philosophy, adduces many cases where the parallelism between statements of Hume with those of Sextus Empiricus or the French sceptics is too close to be fortuitous.

Mr. Laing's chief motives in writing this book seem to be (1) to prove that there is a direct historical connection between Hume and Sextus Empiricus; (2) to establish the position that Hume's philosophy is not to be interpreted as deliberate return to absolute scepticism, but rather a deliberate attempt to find a partial antidote to it. Hume accompanies the wreckers as far as they go, but he goes with them for the purpose of salvage. Where they are content to exhibit the claims of human reason as hollow pretensions, Hume is all the time trying to show how these pretensions emanate from and reveal the innermost springs of human nature. They demolish a Weltanschauung. He employs their demolitions as materials for his constructive philosophical anthropology.

It is a pardonable result of Mr. Laing's enthusiasm for his two new lines of interpretation that, as it seems to me, he seriously underestimates the dependence of Hume on Berkeley, and especially on Locke, for his methods, his tools, and above all for his problems.

Philosophically it seems to me to matter comparatively little on what armouries Hume drew for his missiles, and to matter a great deal how it was that he found his target. Most of all, surely, it matters whether Hume hit his target—whether, that is to say, the answers which Hume gave to the questions with which he dealt are true or false. On the whole I think Mr. Laing has been over modest on this side. He appears to think (mistakenly, as I hold) that the whole duty of an expositor is to expound. But the inevitable result of such a treatment is to leave the student with the impression that he is reading an obituary notice, the author of which does not and the reader need not care very much whether the late lamented doctrines are true. I think that why Hume is worth writing a book about is because he saw and was the first to see clearly at least half a dozen truths which are of the very greatest importance in logic and epistemology, and that he saw and has left us with two or three questions which are now among the burning questions. And if, as I suppose he has, Mr. Laing has an analogous list of his own, I think he should have suspended précis and told us what its items are.

Instead of this Mr. Laing adopts a method which, though common enough, always vaguely irritates me. (I daresay I am alone in this.) He treats the history of philosophy as a sort of tournament in which something called dogmatism or rationalism is pitted against something called scepticism, at whose side stand empiricism and sensationalism. Thus he continually describes Hume as siding with scepticism here, being influenced by phenomenalism there, opposing rationalism on one point and supporting some other "ism" or another. But surely when philosophy is alive it is not in the least like a general election or a heresy hunt. A "school" is only a name for the fact that a number

of persons have thought a certain proposition true. The only sense in which Hume took sides with one school against another is that he was not alone in thinking certain propositions false which some other people were together in thinking true. And as these "isms" are very seldom defined, or if they are their definitions are very easy to forget, it would always be better to formulate instead the propositions the acceptance or rejection of which constitutes allegiance to one "school" or the other.

For example, instead of saying that "Hume's theory . . . rejects dogmatism or rationalism," we could just as easily say "Hume denies that particular matters of fact can be the conclusions of demonstrative reasonings"; and for "Empiricism" we could substitute "the doctrine that knowledge about particular existences can only be got after acquaintanceship with them, and this acquaintanceship is either sense-perception or introspection." This procedure (which is surely on the whole that of the great philosophers themselves) may be more long-winded, but it avoids suggesting what the other usage seems always to be suggesting, that it is partisanship which primarily determines the conclusions at which philosophers arrive.

However, given that we can readily interpret these war-banners, Mr. Laing does give us an interesting and original picture of the general disposition of the armies and of Hume's station amongst them; and his alliances and onslaughts, his weapons and his passwords are succinctly described.

A large portion of the book has, of course, to be devoted to Hume's doctrine of the passions, of morals, of religion, of politics; and his sociological and economic, as well as his historical writings, cannot go without a mention. And so far as I can see Mr. Laing gives an admirable and readable résumé of Hume's work in these spheres. To do his book real justice, a fair-minded reviewer should, of course, give as generous a measure of description and discussion to Mr. Laing's exposition of these relatively unexciting parts of Hume's work as to that of the relatively exciting portions. But I must content myself with saying that Mr. Laing's treatment, while not particularly critical or analytic, is thorough, clear, methodical, and faithful.

To come to Hume's logical and epistemological theories. The exposition and discussion of these is compelled by sheer considerations of space and proportion to be of economical dimensions. And as Mr. Laing very scrupulously attempts to present a complete and consecutive abstract of Hume's own argument, this, together with not a little historical comparison, already packs fairly tightly the seventy-odd pages which he can allow to this part of Hume's philosophy.

He gives quite a good account of Hume's doctrines of impressions and ideas, though the philosopher would, I fancy, have blinked a little at the distinction drawn between an idea and its "meaning," and a lot at the suggestion that an impression constitutes the meaning of the idea or ideas deriving from it. Some light is thrown on the obscure distinction which Hume draws between "natural" and "philosophical relations," and in general on the way in which, according to Hume, some relations are given with or in the data of sense.

In the chapter on Space, Time and Mathematics, some interesting references to Bayle and Sextus Empiricus throw a not unimportant light on the source of Hume's problems and of some of his devices for dealing with them. A fuller treatment of the precise nature of mathematical reasoning would have been helpful here. So much of Hume's argument depends upon his odd-sounding assertion that demonstrative knowledge holds and only holds of the abstract relations of our ideas (which would be nonsense if "idea" meant "image"), that this Lockean theory might well have been given a more

ample explication. Admittedly Hume was himself wickedly brief in his account of the positive nature of mathematical reasoning; but he took it for granted that everyone knew and accepted Locke's account of scientific knowledge (save for his inclusion of morals in it). And it is impossible to understand Hume's very original inquiries into the nature of inferences to particular matters of fact, unless the nature of the distinction is clear between mathematical propositions which can be demonstrated and propositions asserting matters of fact which cannot.

This leads up to my chief grumble at Mr. Laing's book. As I see him, Hume is primarily a great and original logician, and the main truths which he established were truths in logic. Now I feel that Mr. Laing does not bring out clearly and sometimes does not bring out at all the logical point of Hume's doctrines.

For example, in what should have been the most important chapter in the book, that on Hume's analysis of causation, Mr. Laing lays emphasis on the fact that Hume is investigating the logical foundations of inference, but he fails to make clear that Hume is concerned precisely *not* with demonstrative or deductive inferences, but with inductive generalizations and causal inferences to particular matters of fact. He is showing for the first time in history, I suppose, that inferences the conclusions of which state particular matters of fact, such as predictions, are inferences (if they are inferences at all) of a generically different type from the deductive reasonings of mathematics. It is because of this radical difference that the question can be asked, and has to be asked, whether these inferences which are not demonstrative have any logical credentials at all.

Yet Mr. Laing (on p. 124) associates Hume with two quite different sceptical views (both false) of *deductive* reasoning: one that all reasoning is *petitio principii*, the other that the function of reasoning is to make "an obscure point clearer by deriving it from premisses."

But surely Hume was as certain as Locke was that there is demonstrative reasoning, that it produces new and instructive truths, that scientific knowledge consists in it, and that its name is mathematics—or anyhow, algebra and arithmetic. What advantage could he expect otherwise to derive from his proofs that causal inferences to particular matters of fact and inductive generalizations are not demonstrative reasoning? Or from his proof that any statement of a particular matter of fact can be contradicted without a *logical* absurdity resulting?

Again, we are told "Scepticism holds that in deduction the premiss (*sic*) from which the conclusion is derived assumes that conclusion, and that in induction there is no rule or device by which the universality of a proposition formed by a consideration of singulars can be guaranteed." I do not know who Scepticism is, but Mill (phraseology apart) held the former of the two points. Hume did not. And the latter point (phraseology apart) was not merely "held" by Hume. He proved it. And he proved, too, that particular causal inferences to particular matters of fact cannot in principle give scientific or demonstrative knowledge. For they rest on inductions.

As I see it, Hume proved or argued forcibly for the following propositions, most of which were new and most of which are true:

(1) Knowledge of and beliefs about particular existents and occurrents rest on the data of sense-perception and introspection. (2) They are enlarged by memories of these, and causal inferences from these. No other grounds can be given for asserting that something exists or happens. (3) Inference to particular matters of fact (if it is inference) is generically different from formal deduction. (4) Inductive generalization from *some* to *any* is generically

different from formal deduction. Its conclusions are not demonstrated. (5) Causal connections (if there are such) between particular existents or occurrents are not *given* in observation. (6) Propositions which assert such connections are not analytic propositions. (7) Belief in them rests on inductions from *some* to *any*. (8) The only principle which could even partially justify such generalizations, namely, some uniformity principle, is not an analytic proposition or a demonstrable one, or one which particular inductions could prove. (9) Expectations are in some cases the effects of mere cognitive habits, and so are not conclusions of pieces of reasoning. (10) There is no *obvious* difference between expectations of this sort and what we claim to be scientific predictions.

We may question whether Hume was right in holding that there is no other explanation of the complete confidence which we repose in some of our particular inferences to particular matters of fact than the fact that habituation digs intellectual ruts. It may be that there is a radical difference between beliefs which arise from unbroken habits and rational opinions, so that anyhow some of our particular causal inferences are and are known to be in some objective sense of the word very highly probable. But this would not in the least shake Hume's main thesis, that there is no formal demonstration of particular matters of fact.

Mr. Laing makes a strong plea for the view that Hume is not only finding an important fact about human nature, but is also finding a real answer to scepticism when he gives to the imagination the responsibility for the "inferences" which rationalists had wrongly supposed to be the work of reason. But he says either too much or too little when he sums up Hume's achievements on this point by saying: "What Hume has discovered is, to use a modern phrase, that a thought-factor enters into the constitution of experience and gives it unity and continuity in addition and in contrast to mere spatial and temporal relationships," and: "There is not much doubt that Hume considers that he has established an argument for causation, and thus has met the sceptical position." For it all turns on whether this "thought-factor" is and was thought by Hume to be a "credulity-factor" or a "reasoning-factor." If the former, no proof of the inevitability of credulousness can be an argument for there being real causal connections between particulars, any more than the inevitability of superstition would prove the existence of ghosts. And if the latter, *where* does Hume show that reasoning or scientific knowing enters into the way in which we are forced to imagine particulars as necessarily involving other particulars? It is surely a bad mistake to say, "Clearly, then, Hume does not call causal knowledge in question." He does. What he does not call in question is causal *belief* or assurance, in the sense that he does not deny that it happens and he does not recommend that it should be abolished. He does deny that it is knowledge, that it has any rational grounds and that it is true—though he allows that it is constantly lucky.

Holding, as I do, that Hume's originality and importance consist in his proofs of or arguments for the propositions which I have listed, I am bound to lament the absence from Mr. Laing's account of Hume's influence on Kant any reference to the problem of synthetic *a priori* judgments.

Only, I think, in one sentence does Mr. Laing show whether he himself believes that Hume's philosophy of causality, induction, etc., is true or false. He says (p. 262): "He makes a courageous effort, however, to show how the ideas of causation, of an external world, of a self, of moral and political obligation are derived from the initial data. His account may now be considered inadequate, but he at any rate directed attention to the kind of

problem that arises if the intuitive character of these ideas is denied and if the position of sensationalism is adopted." Mr. Laing, therefore, holds (though he does not develop the theory) that "now" we know what Hume ignored or was ignorant of, that besides sensitive and introspective acquaintanceship there is another basis for knowledge of particular matters of fact, namely, intuition. But I confess that I personally am not endowed with this sixth sense. And I fear that most scientists are similarly handicapped. For clearly no one who has it need perform any experiments, collect any statistics, or make any probable generalizations from collected observations. Nor would there remain any place for hypothesis or the experimental confirmation and invalidation of hypotheses if we could see intuitively that a given existent or occurrent causally involved something else, and could also see what exactly it involved.

In conclusion, I should say that while Mr. Laing's book seems to me to be weak on the logical side, and so to contribute little to the philosophical interpretation of Hume or the philosophical solution of Hume's questions, it is in other respects and especially on the side of Quellenforschung a useful companion to the study of Hume. It achieves a great part of what it aims at. Only it does not aim high enough.

GILBERT RYLE.

Causality. Lectures delivered before the Philosophical Union, University of California. Edited by G. P. ADAMS, J. LOEWENBERG, S. C. PEPPER. (University of California Press, and Cambridge University Press, England. 1932. Pp. 231. Price $3.)

Philosophers will welcome the publication of another volume, the fifteenth, of these annual lectures. Those given this year deal with a topic of great importance for philosophy and science, evince much ability, and are very well and lucidly written. But having said this with emphasis, I must confess to a feeling of disappointment that so much skill should have been expended without advancing the subject more effectively. The controversy between those who find in causality nothing but uniform sequence and those who find in it an "intimate" relation involving something of the nature of activity runs throughout the book, but neither side offers any really cogent arguments in favour of their own view or shows much sign of adequately appreciating the difficulties to which it is liable. While the one side asserts that the meaning of causation must be identified with the test of it, but admittedly fails to show that causality thus interpreted leaves any scope for justifiable prediction by inductive methods, the other insists that there may be something more which is given in our experiences of "enforcement," but casts very little light on the nature of this something and produces hardly any effective criticism of their opponents, who doubt whether the obscurity conceals anything. The advocates of the first type of view, Professors Schlick and Dennes, seem to me to make a much better show than their opponents, though any prejudices I may personally have would be more likely to be on the other side. Professor Schlick's lecture is a model of lucidity and shows great philosophical ability, but it depends throughout on the at least highly disputable assumption that the meaning of a proposition is to be found in its verification. Professor Dennes' contribution is also of high quality, and is the only one which goes beyond the author's own view to give an effective criticism of opposing views, at least if we except Professor Adams' attack on Hume. Interesting suggestions there are in plenty on both sides, and

Professor Adams' lecture, with his proposal that causality should be regarded as determination by general organization, may be specially commended. Perhaps the most valuable contribution is by Professor Lenzen of the Physics Department, though, unfortunately, the present reviewer is not competent to appraise the more scientific part of the article.

Whichever side of the controversy we take, and whatever our views in detail, the following two points seem to emerge from the book as a whole:—

(*a*) That while no one, here or elsewhere, has yet succeeded in giving a satisfactory account of the conception of causality as activity, perhaps because it is unanalysable, this conception cannot be disproved unless we assume that what cannot be stated definitely and clearly or verified by scientific method is necessarily false. It must be admitted that the conception is of little or no use to science, but it can still put forward some claim to be an empirical concept and, I should add, to be implied in all practical life. But, as suggested by several contributors, causality may be a much more complex and obscure relation than is generally realized, and we cannot at the best regard any of the rival views as more than partial approximations to its real nature.

(*b*) On empiricist lines causality as used for prediction of the future can be nothing more than an ungrounded hope. The success of predictions based on it in the past cannot justify the view that there is any likelihood whatever of its succeeding in the future unless we assume some *a priori* principle to the effect that what has happened is more likely to happen again under similar conditions. Hence those who would substitute regularity for causation have to abandon with more or less grace even the hope of justifying induction.

It is fortunate that each of the lectures printed expresses a genuinely different view and that there is hardly any repetition. But the treatment of the subject falls further short of completeness than we have a right altogether to excuse, *e.g.* little attention has been given to discussing the connection between cause and ground, a discussion which seems to me absolutely essential for elucidating the meaning of cause. It is greatly to be hoped that the editors of later volumes of these lectures will see fit to provide us with an index.

A. C. Ewing.

Duty and Ignorance of Fact. (*Annual Philosophical Lecture, Henrietta Hertz Trust,* 1932.) By H. A. Prichard. (London: Humphrey Milford. 1932. Pp. 28. Price 1s. 6d.)

This brief and illuminating paper of Professor Prichard's comes as a treat to all of us who admire that combination of philosophical acumen and respect for the convictions of common sense which makes him so fitted to deal with ethical problems, and who at the same time deplore his reluctance to put his thoughts on paper.

Professor Prichard is here concerned with the following question: "If I have an obligation, does it depend on the existence of certain facts of the situation, or on my having certain thoughts about certain facts of the situation?" The question is clearly of the utmost importance.

The argument, which is developed with admirable clarity, is briefly this. *Prima facie* our ordinary moral rules, such as "you ought to speak the truth," suggest an "objective" view. For if we consider the meaning of any moral rule, and also what is meant, strictly, by "doing something," and remember that "ought" implies "can," we see that any moral rule, when elucidated, means, "when a situation contains a thing of the kind A capable of having

a change of the kind X effected in it, and some act we can do will in fact bring about such a change, then we ought to do the act." Our moral rules seem therefore to imply that if we have an obligation, it depends on the actual character of the situation—on the fact that something we can do, will, if done, have a certain effect. But this view lands us in the awkward position, that, since we can never *know* whether any situation fulfils the required conditions, we can never *know* whether any moral rule applies to us, and hence we are rendered uncertain "whether we or anyone else has ever had or will ever have a duty." Let us now try the alternative "subjective" view. The most plausible form of this is that an obligation depends on the fact that we think something we can do "*likely*" to have a certain effect. This avoids the paradox that we are never able to discover our duties, for we can always know whether we think something likely. We must now see which of the two views corresponds best with what we ordinarily think. (It is here pointed out that the same alternatives must, *mutatis mutandis*, be faced by those who hold that an obligation depends on relation to "goodness.") Our ordinary beliefs support, on the whole, the subjective view—we think, for instance, that we were right in slowing down in a car before entering a main road, even if it turns out that there was no traffic. In a digression, Professor Prichard argues that, in spite of our ordinary assumption, an obligation cannot really be an obligation to "do anything," but only "to set ourselves to do something," and this conclusion, if true, still further favours the "subjective" view. The main difficulty of the "subjective" view—that it makes an obligation depend on our *thinking* something—is not finally removed till we see that the word "ought" refers not to "a character of a certain action," but to "a fact about a certain man." All difficulties are thus removed, and we can be quite certain that the "subjective" view is correct.

There are a few points in this argument on which I think it is worth while to express, diffidently, an opinion. (i) I think it is clear that Professor Prichard is using "depend on" in the sense of "depend solely on" (see, *e.g.*, top of p. 8). That is to say, he is not asking, in regard to these two sets of facts, "objective" and "subjective" respectively (which we may call F^1 and F^2), on which of them an obligation depends *in so far as it does depend on one or other*. It might, for instance, be held that either F^1 or F^2 was a "necessary" condition of there being an obligation, but that there were other necessary conditions as well—such, for instance, as some *moral* state of mind in the agent—and that Professor Prichard was only addressing himself to the limited problem of discovering whether it was F^1 or F^2 *so far as they were concerned*. But I think it is clear that he is not doing this, but, assuming it to be the case that F^1 and F^2 are mutually exclusive and collectively exhaustive "*sufficient*" conditions of there being a duty, he is telling us we have to choose between them. This is clear from the fact that he prefers F^2 because he thinks F^2 is a fact *we can know, and therefore know that we have a duty*. This means he is using "depends on" as the converse of "entails" or "necessitates." But if this is so, I think he misconceives the alternatives in regarding them as respectively a fact purely about the situation and a fact purely about our thought of the situation. For clearly no fact or set of facts *purely* about our thought can "necessitate" that we ought to do anything—for no fact can "necessitate" that we ought either "to do" or "to try," unless it contains as a constituent the fact that we "can," and this is a fact not about our thinking but about the case. We are liable to be misled because we think that F^2, being the fact that we think something we can do will have a certain result, is a purely "subjective" fact, whereas it is really the complex fact that "there is something which (*a*) we can do, and (*b*) we think likely to have a certain result." Prichard might

indeed reply that since it is certain that we always can "set ourselves to do something," F^2 is a fact about our knowledge and belief; but this would surely be wrong, because though it is in general more likely that I shall be able to "try" than that I shall be able to "accomplish," yet we never at a given moment "know" that we shall at a future moment be able "to exert ourselves," for we don't know, *e.g.*, that we shan't fall down dead before that moment begins. And so even on the "subjective" view we shall never know that we ought to do anything, though perhaps when we are actually "trying" we shall know that we *are* "trying," and so know that what we are doing is a duty.

But (ii) apart from all this, it is not clear to me that F^1 and F^2 are collectively exhaustive alternatives. For I think there is a real distinction between a result's "*being* likely" and "somebody's *thinking* it likely." No doubt it is true, as Prichard says, that "probabilities are not facts in nature" (p. 18), and perhaps it is true that probability is ultimately a character of our beliefs, and not, as Keynes thought, of "propositions." But I submit there is nevertheless a sense in which probability is "objective," and that the statement, "X's belief that something is the case, is probable," is different from "X believes it probable that something is the case." To say of a person's belief that it is "probable" or "reasonable" is to ascribe to it a character which it has in virtue of its relation to certain things the person knows, and it might have this character without the man's knowing it—it might, as we say, be a belief not *reached* by inference but *justifiable* by inference; and again he might think it had this character when it in fact had not, and so would be mistaken in thinking "that something was probable." And it *may* be the case that an obligation depends on the fact that a certain belief is, or would if it were held, be probable. Prichard holds (p. 14) that if we "think without question" that something will result, it can't be our duty to act, because we are not "thinking something likely," and therefore our duty must be to consider the circumstances more fully. But there might not be time—*e.g.* if someone were drowning; and if we thought that we could by jumping in save him, is it "unreasonable" to suggest that whether we ought to or not might depend on whether our belief, though unreflective, was a "reasonable" one?

I think, by the way, that Prichard's view (on p. 13), that there will, on a probability view, be a doubt in some cases as to "what degree of likelihood is *necessary*" to render an act a duty, must be mistaken. There can surely be no doubt that the correct answer is, "any degree, however small, provided it is greater than that possessed by the other alternative courses"—though there are, of course, cases in which it is difficult to discover which course, if any, has the greater degree.

I should like to discuss Professor Prichard's view that an obligation is always to "try" and never to "do," but there is not space. But both this and his coming over to the subjective view constitute a pretty considerable change of front, and it is perhaps a little overwhelming to be told in conclusion that "we know" the subjective view is true. This strain of dogmatism in Professor Prichard's thinking is not unfamiliar: I feel sure we have been told before that "we know" the objective view is true, and perhaps we shall some day be told it again; but the pain, if such it be, of being a little disconcertingly flattered will, I am sure, always be compensated by the pleasure of hearing the other things which Professor Prichard says.

IAN GALLIE.

Rule and End in Morals. By JOHN H. MUIRHEAD, M.A., LL.D., F.B.A. (Oxford University Press, 1932. Pp. vii + 120. Price 3s. 6d.)

This work, by one of the Elder Statesmen of the kingdom of Philosophy, performs a most timely service and performs it in a way which it would be difficult or impossible to better. The qualities which we particularly associate with the author—the friendly interest in other people's views, the sympathetic understanding which never blunts the acute powers of criticism, the native appreciation of moral issues—are here all shown to an even higher degree than usual, and they are just the qualities most needed for a work of this kind. The only complaint that might be made is that the discussion is too short to deal with all the points that we should like to see treated by this author in this connection.

The subject of the book is an account, partly historical and partly critical, of the most significant recent developments in ethical theory. In particular, it shows us the reaction against the once dominant Idealism, represented by T. H. Green, and the other views of the period which, however much they may differ, unite in interpreting morality in some sense in terms of purpose. They also unite in the assumption that the good which is the object of purpose can be analysed or defined or expressed in other terms.

Professor Muirhead sees, I think rightly, the beginnings of the modern critical movement in the appearance of *Principia Ethica*. But this work only started the ball rolling, because, while insisting on the ultimate and indefinable good, it still treats rightness of action as a derivative concept, to be defined in terms of means to an end, the production of good. The special feature of the movement which followed from this was the insistence on the equal ultimateness of the notions of right, duty, and obligation. The first public expression of the movement is found by Professor Muirhead in Prichard's article in *Mind*, "Does Moral Philosophy Rest on a Mistake?" and the same point of view is developed by the same author further in his inaugural lecture. It appears, though with some backsliding, in Carritt's *The Theory of Morals*, and is given its most systematic and impressive form by W. D. Ross in *The Right and the Good*. It is difficult to condense further the all-too-brief but illuminating discussion of these contributions to the movement.

There are already signs, however, of what Professor Muirhead calls the return to a more carefully considered teleology. He finds the first symptoms of this—again I think rightly—in the essays in J. L. Stocks' *The Limits of Purpose*, which, though in form a criticism of purpose as the central moral notion, in reality points the way to such a modification of the notion that it becomes conceivable that it may yet be reinstated in its central position without laying itself open to the criticisms brought against it. The signs of this return become clearer in De Burgh's articles, which introduce the religious factor as a principle of connection, and in Joseph's *Some Problems of Ethics*, which stresses the notion of goodness as a form. The book concludes with a final chapter, "Towards Revision and Synthesis," in which an attempt is made to show how justice can be done to the force of the criticisms from the side of the reaction, without abandoning the essentials of the teleological position.

Professor Muirhead finds, as many of us find, the hard distinction between the chief moral notions impossible to accept. "To attempt," he writes, "to cut off one's judgments of the Right and obligatory from their background in the objective goods or values of human life is as impossible as to cut off our judgments of truth from their background of the objective reality of the world to which they refer." We do not want to make the one merely instrumental to

or reducible to the other. But it seems far more consonant with the nature of moral experience to look for some organic connection between them than to leave them as irreducible ultimates, "in disconnexion dead and spiritless," with nothing further to be said about them. Many of us, also, will feel with the writer that the views under discussion derive a great deal of their plausibility by presenting an unduly narrow conception of purpose as the only possible alternative view. Professor Muirhead's correction of particular instances of this fallacy is particularly apposite and convincing. As against this, he indicates as his constructive alternative the view "that all the relations of which morality takes account stand in organic relation to one another in . . . a form of life, which it is the vocation of man . . . to realize in and through them." It is not claimed that this view is worked out in its completeness. But there are many helpful suggestions (including the interesting discussion in the last chapter of the notion of "ought to be" as really more fundamental than the notion of "ought to do") of the direction in which it could be developed.

There are many other interesting points raised which cannot be discussed here. But one point in particular deserves special mention. There are several suggestive, but tantalizingly brief remarks (*e.g.*, pp. 35, 102, 103) about what we may call the logic of ethics, problems about the nature of moral judgments, the structure of ethical arguments and the kind of proof of which they are susceptible. It is possible that a far more thorough study of these points than anyone has yet given us is necessary before the argument can progress much farther than its present stage. Will Professor Muirhead consider giving us such a study?

G. C. Field.

The Philosophy of Physical Realism. By Roy Wood Sellars. (New York and London: The Macmillan Co. 1932. Pp. xiv + 487. Price 20s.)

Professor Sellars describes this work as "an attempt at a 'first philosophy,' " but it is a 'first philosophy' very narrowly conceived. At times he seems to hint at a conception of philosophy more in keeping with the spirit of the masters, *e.g.* when he tells us that "philosophy is a unit, and the ideal of system cannot be escaped" (p. 26); but he finds that "reality is a loosely strung system" (p. 357), and the narrower conception, according to which "the task of philosophy is to develop and clarify the basic distinctions of common sense and science" (p. v), prevails and determines the scope of the present work. Accordingly, half the work is devoted to epistemological considerations, which the author considers "the root of all differences in philosophy" (p. 235), and the greater part of the other half to an analysis and reflective consideration of the results of natural science.

The main line of thought and much of the detailed argument are already familiar to readers of Professor Sellars' earlier works. The epistemological discussion is mainly a restatement of the position developed in *Critical Realism* (1916); the ontology is a development of the contentions of *Evolutionary Naturalism* (1922); and the argument of the last two chapters (one on 'mind' and the other on 'values') is to be found in all Professor Sellars' works. The name Physical Realism, as a description of his philosophical standpoint, is substituted for Evolutionary Naturalism to emphasize the fact that his type of naturalism is materialistic (p. 4), that the physical and the real are identical (pp. 13, 16), and that even "mind is a physical category" (p. 411).

In this restatement of his position, Professor Sellars makes many points clearer, especially by contrasting his position with that of other contemporary

realists; he repeats much valuable analysis contained in the earlier volumes; he introduces certain new terms like brain-mind and continuant; he reformulates his account of the relation between sense-data and physical things; he develops in greater detail his theory of concepts as operative unities which serve the purposes usually attributed to universals; and he adds much suggestive discussion on the implications of the present position in physics; but the essential contentions remain the same as in the earlier volumes. Indeed, I doubt if the statement of the positions which are crucial for his type of naturalism has gained much in clearness, and I can find very few new arguments advanced in support of them.

Professor Sellars rightly holds that the main defects of the old naturalism were: (1) its ignoring of levels of existence and of wholeness, patterns, organization (pp. 3–4); (2) its inadequate epistemology (p. 5); and (3) its inability to find a place for mind and values (p. 18). The new naturalism stands or falls with its success in overcoming these defects. The first is easily overcome: following the lead of recent science the new naturalism does full justice to emergent levels, structure, and unities. The theory of knowledge called Critical Realism is a powerful, if not entirely convincing, effort to remove the second defect. But the account of mind and values—the most crucial points for this type of naturalism—is much less clear and satisfactory.

Professor Sellars again takes the line of approach to his own philosophical position which he followed in all his previous works, viz., a brief historical survey of modern theories of knowledge from Descartes and Locke to contemporary realists. The argument is: the dualism of Descartes led to the representative realism of Locke. Though Berkeley exposed the defects of this representative realism, he took the 'wrong turning' into subjectivism; but it was 'almost necessary' to explore the 'blind alley' of idealism before further advance was possible. Pragmatism—the first revolt against idealism—suffers from the lack of an epistemology, "the beginning of wisdom in philosophic matters"; while the epistemology of most contemporary realism, like that of common sense, is 'naïve,' and renders it incapable of explaining the different appearances of the same thing.

Against what he regards as the 'over-simplified epistemology' common to idealism and neo-realism, the 'apprehensional or intuitive theory of knowledge' according to which mind is in immediate contact with the object known, Professor Sellars propounds a 'non-apprehensional,' 'a mediate but non-inferential' theory, according to which the act of knowing is 'directed at,' and 'discloses' an external object which is not literally given in experience. In perceiving, which Professor Sellars regards as the unit of external knowing (p. 65), sense-data alone are immediately given or apprehended. Such sense-data, however, are not the objects perceived, but only the means of perceiving them (p. 59). Our knowledge of external objects takes the form of judgments or propositions in which we characterize them by means of predicates or meanings or concepts founded on the sense-data which are the effects produced in consciousness by the external objects. Along this line Professor Sellars defends a correspondence theory of the meaning of truth. The correspondence is due to the fact that a 'structured or patterned object' causes an 'ordered stimulus.' This gives rise to a 'structured cerebral pattern,' which in turn functions as or finds expression in an 'organized sensory field' (pp. 86, 109). Accordingly we can know only the 'structure' or 'pattern,' not the 'content' or 'stuff' of external objects. This correspondence is an implication, not a test of truth. The tests of truth are immanent, and follow from the nature of knowledge. The treatment of these tests is far from clear. Among the tests mentioned are 'guidance and control value,' 'capacity for prediction,' 'consis-

tency,' 'furtherance of insight (sometimes "coherent insight") into the world,' 'care in securing data' (pp. vii, 126); but in the detailed explanation (pp. 119 ff.) the only tests which are at all clear are the first two, the pragmatic tests, and their relation to 'coherence' and 'insight' is left very vague. Another respect in which the theory seems to me far from clear is its account of concepts and their relation on the one hand to sense-data, and on the other to external objects. Concepts, meanings, ideas of (these being regarded as synonyms), are sometimes described as abstractions from sense-data (p. 204), while at other times sense-data are said to be 'enveloped in a complex of meaning' (p. 202). Concepts are said to be 'carried by,' 'intrinsic to,' 'founded on,' 'responsible to,' sense-data. They are in some sense particular, but they 'disregard their particularity' and become 'logical universals' (p. 165). And though sense-data and physical objects are both particular, concepts or logical universals which are 'founded on' sense-data not only 'disclose,' but are our only means of 'characterizing' physical objects. But despite these difficulties, Professor Sellars' treatment of epistemological questions shows great acuteness and analytical power, and it seems to me to contain his chief contributions to philosophy.

Most of the second half of the book is concerned with the ontological implications of natural science. Here Professor Sellars uses the conclusions of his theory of knowledge to explain and defend categories like substance, space, time, causality, and to solve the traditional paradoxes connected with motion and change. For him the fundamental category is substance, a term which he uses not in the sense of 'substance and attribute,' but as identical with 'thinghood,' 'existence,' the 'being' or 'stuff' of the physical world. It seems to stand for the independent reality of the physical object—the 'un-get-at-able X' which can be characterized in propositions, but whose 'stuff' we cannot know. It is thus "a vague and generic category," and in order to understand it "we must seek to put ourselves sympathetically on the inside of things" (p. 285). The other categories also are "discovered as factors in our experience," and "the business of philosophy is to *exhibit* them" as it finds them employed (p. 144); but they "are developed in our experience" under the "guidance and control" of nature, and "nature conforms to them because nature is their foundation" (p. 216).

Much of the detailed discussion in this section is acute and scholarly and suggestive. This is specially true of the contentions, as against many recent philosophers of science, that "physics is really deciphering the pattern of the world," and not merely "manipulating pointer-readings," and that "the theory of relativity has only epistemological and not ontological implications," that "it is concerned with measurement not with physical reality," that, in short, "the Fitzgerald shortening does *not* occur" (p. 315); and that therefore the theory of relativity is quite consistent with Professor Sellars' 'ontological absolutism,' according to which things have 'an intrinsic determinate nature and size,' and 'absolute simultaneity' is not meaningless. But there is no attempt to bring out the interconnection between the different matters discussed in the way which one would expect in a 'first philosophy.' While emergent wholes and levels of knowledge are stressed and particular categories are discussed, there is no indication of the relation between the different wholes and levels and categories. We are not told what a category is, nor whether every category applies to each level.

The difficulties resulting from this vagueness become more acute in the penultimate chapter which deals with mind, a subject which is crucial for naturalism. Here Professor Sellars seems to me to alternate between two inconsistent positions. On the one hand, as an emergent evolutionist, he

recognizes different emergent levels, holds that consciousness is 'unique,' and that "the categories which apply to physical things and their parts do not apply to it, or to any of the factors in it" (p. 414). According to this view we have 'a double knowledge' of the brain, the one given by physiology, the knowledge of the external observer, which gives only the structure or pattern of the brain, the other the knowledge given by introspection, the knowledge of the inside observer, the knowledge of the 'content' or 'stuff' of the brain. This latter kind of knowledge we cannot get in the case of any other existent: "we have not the glimmer of an idea of what non-conscious things are like on the inside" (p. 425). On the other hand, his anxiety to overcome dualism and his dread of supernaturalism leads him so to interpret the continuity of reality that he regards every level, even mind, as physical. He then rejects the 'double aspect theory' in the form in which it is held by thinkers like Bosanquet and Professor Alexander, makes mind 'a physical category,' puts sense-data, concepts, and every thing mental 'literally in the brain,' and applies to the mind all the categories which apply to physical things. Nor does the distinction which he draws between the mind and consciousness reconcile these opposite contentions. Mind, he holds, is more than consciousness. Mind is the brain as known by physiology *plus* the brain as known by introspection (*i.e.* consciousness and its field). But this does not help unless we can think the two elements which constitute the mind together without contradiction, and despite the wealth of phrases in which he describes their relation, Professor Sellars does not show us how this can be done. A conscious process 'permeates,' 'is one with,' 'is integral to,' 'is intrinsic to,' 'is carried by' a cerebral pattern. In consciousness we 'participate in the physical reality called the brain'; 'we are on the inside of the brain'; we are 'the brain as sentient.' Moreover, physical categories like space (for there is only *one* space (p. 431)) are applied even to the conscious element in the mind, and yet they don't seem to apply literally to it. While consciousness is extended it is extended 'after its own nature,' while it is in the brain, it is in it 'after the manner of consciousness' (pp. 414–15). Sense-data, which are in consciousness, are 'literally in the brain,' but they are in it not as 'surface qualities,' but 'as qualities of brain events' (p. 412). Is all this anything more than an inconsistent attempt to admit the fact of consciousness, while refusing to face the implications of the fact? The attempts to answer critics like Professors Pratt and Hocking still leaves the ontological status of sense-data and their relation to the brain as hazy as before. It is quite true, as he says (p. 424), that "the very fact of consciousness shows that it is not existentially impossible in the universe which exists," but that does not prove that its existence is compatible with the account of the universe given by Physical Realism.

The same general considerations apply to the treatment of values in the last chapter. Professor Sellars seems to think that the task of philosophy is completed when it has recorded and described the facts which are revealed at the different emergent levels. He does not bring out the relations between these 'facts,' nor what are usually called their metaphysical implications. If he is to supply what he regards as the special need of the modern age, "a philosophy of life based on foundations which cannot be moved" (p. 8), he must go much farther than he has done in this work.

A. Macbeath.

The Spirit of Language in Civilization. By KARL VOSSLER. (Tr. OSCAR OESER.) (London: Kegan Paul, Trench, Trübner & Co. 1932. Pp. vi + 247. Price 12s. 6d.)

There are so few books on general linguistics and the philosophy of language in English, that all interested in those subjects will welcome this translation of what is, perhaps, Professor Karl Vossler's most representative book. Of all books in English claiming to be anything like a complete philosophy of language, it is probably the best. Even those who may dislike Professor Vossler's general postulates and philosophical outlook will find a careful study of his chapters a stimulating experience.

Multitudes of scholars have studied language and languages, and multifarious have been their aims, methods, and results. Of all human studies, the study of language is probably the most heterogeneous and heteroclite.

Everyone thinks he knows what language is, and how it is best studied; consequently there is little agreement, either in principle or technique, no union of forces to defy the curse of confusion. If we wish to pick our way among the clash of views, we have to realize that we need the help of philosophy.

First of all let us glance at the work of Ferdinand de Saussure. Around a framework of the French trinity of words, *le langage, la langue, la parole,* and with the aid of such words and phrases as *masse parlante, sujet parlant, diachronique, synchronique, valeur linguistique, interne, externe,* he built a structure which he called *linguistique générale,* the real object of which was not the study of language in its most general sense, nor was it the "fruitless" study of *la parole,* but of *langage* minus *parole, i.e. la langue,* "produit social," "trésor déposé," a grammatical system existing "*virtuellement*" in each brain, and in its tangible written form binding on all members of the community by virtue of a *contrat passé,* a system of agreed code signs deriving from a sort of linguistic general will reminiscent of Rousseau.

Ideas and words seem to flourish in the safe asylum of the Republic of Geneva!

Of the four principal schools of linguistics in Europe, three derive from Ferdinand de Saussure: the French School, the Swiss School, and the Cercle linguistique de Prague. The fourth is the Danish School.

In his recent *Traité de Phonétique* Grammont says that though the influence of de Saussure was great, he was at bottom very little and very incompletely understood. It has taken us, he says, more than twenty years to understand him. That is quite true, and also fortunate for England where beginnings are being made in general linguistics. We have got de Saussure in proper perspective, and though we recognize what we owe to him and his successors, we have also our own tradition from Sir William Jones to Sweet and his successors. We are not in the least likely to develop a fourth de Saussurean School.

Vossler will have none of this "bloodless system of signs" (*langue*), as the exclusive subject of philology. And if I may speak for the few workers in linguistics in this country, so say all of us; though most of us approach language rather from the sociological, anthropological, or purely behaviouristic point of view, all of which are "too narrow" for Vossler, the disciple of Croce. "If, like de Saussure, we study language merely in its outer forms, grammatical structures—separate *langue* from *langage*—we shall fall into the same error as the geographer who thinks he can understand the structure or the relief of a continent or landscape without regard to meteorological and climatic factors." That represents Vossler's line of attack.

Vossler's trinity is Speech, Conversation, and Language. "Speech is as

manifest to us all as thunder—indeed more manifest, since we can create it. In Conversation we are not thundered at alone, we thunder in our turn. But like every storm, conversation passes by and dies away. What remains as the permanent effect of all meteorological phenomena is called climate. Language is to conversations as climate is to weather."

The concept of the individual he quite rightly rejects as altogether out of harmony with the function of conversation, and the whole concept of language. There are no such beings as speaking individuals. A man speaks his native language as a Person, "who can divide into several characters or sub-persons," a unified Personality of various social personae.

For Vossler there is a connection between national character, mental disposition, and the national language, which is the only "experienced language." Other languages are "foreign" languages. A national language is a style. In every national language there is a creative aesthetic will, a master builder. The Person, like the artist, enters into his work to create it. The Person is no individual, but a united personality of social characters or sub-persons, a purposive and creative member of a community.

Hence, language is not, as de Saussure would have it, a mere community of distributed dictionaries, but a community of interests, of sentiment and taste. This essential style, this common sentiment, this taste, this creative aesthetic will, is what he calls *inner language form.*

"If we regard language as energy, as continually realizing itself, striving out of the inner form into the outer phonetic form, we must direct our attention to the inner language form as the main subject of linguistic studies." The outer form in itself he regards as fortuitous and illusory, "the shorn locks of Samson"; the desire to see images of the outer form he likens to the "ridiculous materialistic curiosity of the visitor to Madame Tussaud's."

In essentials, therefore, Vossler is in line with modern progressive linguistic thought in England and America. Language is not merely a mirror of culture, nor a multiplication of echoes of it. It is all of one piece with culture. Language is not merely a process parallel with Culture, it is an integral part of it. Vossler also avoids the dangerous notion of a collective mind or collective unconscious which lurks behind the work of the de Saussurean schools.

The French school, under the influence of Durkheim, appear to regard language as a collective entity apart from the individuals who speak it. Vossler's notion of the Person is sound. As the individual is progressively incorporated into his social organization, he learns his language as part of all those activities, habits, and values which make up the non-material part of his culture. So that we might almost say that Vossler's inner language form is what others would call Social Reality, which every member of a community has to create for himself by a long social apprenticeship.

In Chapter IV, by way of example, Vossler uses his linguistic philosophy to explain "New Forms of Thought in Vulgar Latin," and concludes that Vulgar Latin *is* the road on which the Latin peoples progressed from antique to Christian ways of thinking. Next follow short chapters on Language and Nature, Language and Life, and then the long and important chapter on Language Communities, which is the heart of the book.

You may ignore Vossler's general philosophical outlook and yet find a great deal of linguistic wisdom in that chapter. All linguistic propagandists should read it and ponder—particularly missionaries, foreign educators, and all who believe in outer standardization, or in international, artificial, or "code" languages.

On the subject of Language and Science he is equally enlightened. "The spiritual educative value of mathematical and scientific studies—apart from

their value as knowledge—lies in the liberation from words, in the overcoming of linguistic thinking, dreaming, vague intuition, and the shackles of the mythical, magical, and fantastic." Men cannot satisfy the needs of scientific vision with a pair of normal spectacles common to all men. Scientific advance is impossible without progressive multiplication and specialization, not only of technical terms, but even of national languages.

The subject of his concluding chapter, Language and Poetry, gives him full scope for stating his aesthetic philosophy; but he does so without dogmatism, and craves the forgiveness of his readers if there is too much of language and too little of logic—for "out of the fullness of the heart the mouth speaketh."

May the reviewer also conclude on a personal note and say that though he looks at language from the diametrically opposite point of view, he finds this book one of the best introductions to the philosophy of language at present obtainable in English.

J. R. Firth.

The Buddha and the Christ: An Exploration of the Meaning of the Universe and of the Purpose of Human Life. Bampton Lectures, 1932. By Canon B. H. Streeter. (London: Macmillan & Co. 1932. Pp. xiii + 336. Price 7s. 6d. net.)

Canon Streeter tells us that a recent visit to Japan reawoke an old interest in Buddhism, and connected it with the philosophy he has given in his book *Reality*. Therein he argued that science and religion are parallel avenues to the Real; but as religion does not necessarily mean the Christian form of religion, he has been at pains to set together the very diverse teachings of two great religions on some of the ultimate questions of life, and to see how a Buddhist and how a Christian has been taught to regard them. He expressly disclaims that the book is intended to be a contribution to the Comparative Study of Religion, and this disarms any criticism as to the completeness of the parallel worked out. The first chapter on Science and Religion is largely a summary of the position taken up in *Reality*. Then we are introduced to the Buddha and the Christ. Here Canon Streeter's difficulties begin. Japanese Buddhism is far removed from that of Ceylon, and still further from that of the Buddha. Canon Streeter contents himself with a slight statement of the main ideas attributed to Sakyamuni, and shows that there is more in common between his teaching and that of Jesus than is always realized. Yet one feels that the author could have strengthened this point greatly by discussing the question whether the traditional interpretation of that teaching is at all correct. For example, he says that the aim of Buddhist Ethics is the eradication of all desire, good and bad alike. There is much that can be quoted for this interpretation, and yet the question arises whether it may not be due to a misunderstanding, possibly caused by the lack of words in the original for what, to our minds, are the essentials of desire. For example, the Pitakas have no term for "will," nor for the one who wills. One word translated "desire" is "*tanha*," more properly "thirst" or "craving." Another term also so translated is "*chanda*," but this is used as well to denote simply "wish." The last words attributed to Sakyamuni were that man should work out his own salvation. He is said to have insisted on "stirring up energy," "putting forth effort," "making become." Terms like these do not suggest that he can have taught that the goal of all was the extinction of that pure and right striving that had carried the pilgrim up the road to salvation. Whatever the monks have made of his teaching, there is much to be said for the supposition

that in its original form it did not inculcate the extinction of all desire, as we imagine, and that Sakyamuni was too good an Indian to have lost faith in the "Thou" of the great formula "That art thou." Canon Streeter quotes the works of Mrs. Rhys Davids in his bibliography, under the general title, "Various Works"; but if he had given us his opinion of the contentions of the lady who is undoubtedly the foremost British authority on the subject, as set forth in her work *Sakya*, it would have been interesting to see how far it would have affected the parallel of the teaching of the Buddha and Jesus. Indeed, Canon Streeter aptly says that when the Buddha was most like himself, he was most like Christ. The chapters on Evolving Buddhism and Evolving Christianity are naturally mainly historical, and in the former, the Mahayana school and its Japanese subjects are chiefly in the foreground. Then comes a chapter on Magic, Philosophy and Religion, which is most able and interesting, but certainly allows too much to enter into the treatment to permit the elucidation of some important points that need more than can be said about them. We then pass to the main items of comparison, pain, action and ideal, and immortality. There is an appendix on Buddhist sects, and another in which the author declares war on Otto's Idea of the Holy. In some respects the criticism is just, but Canon Streeter does not seem to appreciate that Otto virtually popularized the "Tabu-Mana" theory, under the name of the "Numinous," and that this ally of his must be dealt with, if Otto's case is to be disposed of.

Canon Streeter's many admirers will not find this book quite so much to the popular taste as *Reality*, but they will find his attractive style and interesting manner of setting forth his ideas in undiminished excellence. If it be the business of the reviewer to find something to criticize, as minor points one could complain that the author has allowed himself to slip into that abominable term "the religious instinct," and has dug out a few such unwanted words as "estop," which will send most readers to their dictionaries. On the major account, although it seems ungracious to complain of too much of a good thing, there is too wide a treatment contained in the book, too miscellaneous a range of topics and observations, all no doubt interesting, but the general effect would have been better if the author had restrained the wide ranging associations of his mind. In consequence the completeness of the working out of the comparisons suffers, particularly in the chapter on immortality, because the writer, not content with Buddhism and Christianity, has something to say of psychical research, levitation, materialism, and telepathy, a most interesting but far too miscellaneous a selection. It is certainly true, as the dust-cover tells us, that these lectures are not an academic treatise on Comparative Religion, or as we wish it had said, the Comparative Study of Religion.

One would not wish to end a notice of a book that has brought so much interest and profit in its reading with complaint, but rather with thankfulness, for the strictly fair and sympathetic handling of a great non-Christian faith, for the lightness of touch that makes a subject full of possibilities of heaviness, attractive, and for the opening out of a line of inquiry most opportune and necessary. It will serve as prolegomena to the Comparative Study of Religion, and will reach many who would not otherwise learn the important issues that it reveals by setting side by side the thought of the two greatest religions of mankind upon some of the fundamental issues of life.

E. S. WATERHOUSE.

The Philosophy of the Present. By GEORGE HERBERT MEAD. Edited by A. E. Murphy, Preface by John Dewey. (Paul Carus Foundation Lectures III.) (London: Open Court Publishing Co. 1932. Pp. xl + 199. Price 15s.)

This book is hardly for the general reader, but no serious student of contemporary British or American philosophy can afford to neglect it. Mr. Mead was evidently a thinker of rare originality and insight, whose death before he had fully developed and expounded his views is an irreparable loss. His editor, Professor Murphy, provides an excellent introduction to his incomplete work. The chief part of the book consists of his notes for the lectures he delivered at Berkeley, California, shortly before his death, which he evidently intended to expand into a full exposition of his philosophy. The rest consists of five papers, only two of which were published or ready for publication. They help to elucidate a number of points. In fact they might well be read first as they are less condensed and easier to follow.

Mr. Mead's views arise as the result of considering recent developments of physical theory and certain closely related philosophies, principally those of Alexander and Whitehead (at least his earlier views). If Space-Time is to be taken as the fundamental fact of nature then, he argues, the whole history of the universe is there already, in a sense that excludes any real novelty or emergence, what Whitehead calls "the creative advance of nature." Mr. Mead argues that the primary datum is the Present, from which Past and Future are arrived at by means of theoretical constructions. The past is irrevocable, and is conceived as that which causes the present. But the past as now conceived is only an adequate cause of the present if the present contains nothing "emergent." When any such novelty appears we reconstruct a fresh past to make room for it, so that the past is not simply given but changes as the present changes; that is to say, it is also in process of being given. It is no good saying that it is only the past as conceived by us that is changed and not the past as it is in itself, because the past as it is in itself is simply what it was when it was present, but *then*, of course, it was not past. If it is now past its pastness is simply its causal relation to the present, and if the present changes (as it does) the past must change too.

Mr. Mead concludes that an emergent process is essentially one that belongs to two spatio-temporal systems; the first the system conceived before it emerged and towards which it behaves as emergent, and the second the system conceived after it has emerged and towards which it is completely causally determined. This of course is simply a description of the way the scientific investigator invariably treats the novel or unexpected.

The other aspects of Mr. Mead's philosophy can hardly be dealt with here, but it is not unfair to say that it is his view of the relation of the past and present that is central and that the rest of his theory follows naturally from it. His philosophy is in fact an exceptionally bold attempt to "take Time seriously," as most philosophers since Bergson have been endeavouring to do. The title of the book is thus an intentional pun. He is dealing with what he considers the central problem of present-day philosophy, and that problem is the nature of the present in its relation to past and future.

A. D. RITCHIE.

Corporate Personality. A Study in Jurisprudence. By FREDERICK HALLIS, M.A., D.Phil. (London: Oxford University Press; Humphrey Milford. 1930. Pp. 287. Price 12s. 6d.)

Dr. Hallis has written a book for which many of those interested in social studies will be grateful. The author finds himself, in his scrutiny of the English theory of corporate personality as it appears modified by practice and by comparison with Continental theory, compelled to raise the large issue of the methodology of juristic thought. Dr. Hallis denies that the conception of corporate personality is either a purely technical device satisfying only a formal requirement of legal construction, or a natural conception to be used and not analysed. It must and can only be studied in relation to the facts which it is meant to construe legally. It is with the logical problem of the status of the juristic concept, and its relation to the world of facts, that Dr. Hallis is largely occupied in discussing the theories of corporate personality put forward by leading English and Continental jurists. These fall into three main groups. The first, the rationalists, are represented by Savigny and Dicey as exponents of the Fiction Theory; and by Stammler, Kelson, and Bosanquet as exponents of what Dr. Hallis calls neo-Kantian rationalistic jurisprudence. The second is pragmatic jurisprudence, chiefly examined in the work of Duguit. The third consists of the theories of Gierke, Ihering, Jellinek and Krabbe, of each of which there is a careful analysis; finally, the author turns to Haurion, Michoud and Saleilles, to the last of whom he owes the greatest debt, and with whose method and conclusions he finds himself most in sympathy. A final chapter summarizes the results of the inquiry, and is followed by a very useful bibliography.

Dr. Hallis ends by rejecting the fiction theory, which he shows elsewhere to have been an untenable theory for the practical application of English law. Corporate personality is a juristic reality, to be carefully distinguished from a simply observable *de facto* reality which would involve the fallacious acceptance of a collective will and consciousness. But, equally, this juristic reality is not merely dependent on the operation of a formal logical dialectic, not a purely conceptual reality such as Kelson held it to be. Its reality is rooted in its reference to the world of empirical fact. There are thus two aspects of the study of the personality of corporate bodies, one referring to the social or material side of corporate life, the other to its legal or formal side. These two aspects can be distinguished but not separated. Therefore the definition of law as a sovereign command does not touch its essence. Law is a social phenomenon and has its foundation in the inherent character of social life. The formal character of legal phenomena apart from their social contents cannot be the object of a study existing in isolation. Which means that juristic and sociological theory, though separate studies, are indispensable to one another. With these conclusions one would not wish to disagree, and it is welcome to find them arrived at after such a scholarly and admirable inquiry as Dr. Hallis has carried out.

It could perhaps be wished that Dr. Hallis had elaborated more fully what he has to say in conclusion upon the question of sovereignty. He rejects Duguit's view that the state is a mere collection of corporate bodies because "we cannot dispense with a highest authority which declares the law and whose decisions are final." The state must remain "in some sense" superior to all other corporate persons. In his view, the superiority is not the superiority of force or a superiority of will. The sovereignty of the state is the sovereignty of its ideal purpose. Its function, therefore, is "the superintendence over other persons in the interests of order and justice." The law of the state is to be judged not merely in respect of its form but in respect of its content

as well. This is very good theory, but it is doubtful if it carries us as far as Dr. Hallis claims that it does. The fact that the corporate person is not something distinct and apart from its members, and that the state as corporate person is a reality having no meaning apart from law, may allow of the state being sued for the torts of its agents, but does it exclude personal and arbitrary authority to the extent which the author claims? Whose are the conceptions of "order and justice" in the interests of which the state "superintends"? Whose is the interpretation of the state's "ideal purpose"? Within Dr. Hallis's own theory it is difficult to see how he avoids a sphere of personal and arbitrary authority, however far his theory helps to reduce its extent.

J. S. Fulton.

Contemporary Schools of Psychology. By Robert S. Woodworth. London: Methuen & Co. Pp. viii + 247. Price 7s. 6d.)

Nothing could be more timely than the appearance of an English edition of this excellent little book, which was published in America some little time ago and very favourably received. The field of Psychology has extended so much within recent years, and the divergent theories and methods of approach have become so numerous, that the intelligent reader who is not a specialist may well be pardoned if he has given up trying to keep in touch with the various developments of the science. The service which Professor Woodworth's book will render is an invaluable one, from the point of view of such a reader, and even from the point of view of the science itself.

After an introductory chapter in which he treats of the historical background of the modern developments in psychology, and incidentally of the source of many of the bitterest of the present-day controversies, the author goes on to discuss the representative progressive psychologies of the present, of which he finds it possible to distinguish five separate and distinct "schools." To each of these he devotes a chapter. The "schools" taken as representative are: (1) the "existential school," the heirs of Wundt and the older introspective psychology, (2) behaviourism, (3) Gestalt psychology, (4) psycho-analysis, and (5) the "purposivist" or "hormic" psychology of which McDougall is the great protagonist. In a concluding chapter, entitled "The Middle of the Road," the author treats of prominent psychologists who cannot be said to belong to any one of these schools, and of the general trend of psychology at the present time.

There can be no question about the usefulness of a book of this kind. The adherents of one of the schools would doubtless be disposed to challenge the adequacy of the account given of the position and work of their particular school. The challenge would be justified if the book professed to give an elaborate and exhaustive treatment of the tenets of the various schools. The book makes no such profession, and within the limits he has set himself it is difficult to see how the author could have done more than he has done. His eminent fairness throughout no one will challenge, and his contention that the different schools do not represent so many different psychologies, but merely concentration on different types of problem in the extending field of a rapidly developing science, is particularly important at the present time. As the author clearly shows in his final chapter the great majority of psychologists keep "the middle of the road."

The only criticism one is inclined to make is that Professor Woodworth rather belittles the prominence of controversial matter in the writings of most

of the leading psychologists of the present. This is probably, as he argues, part of the inheritance from philosophy, but it is there nevertheless, and in our estimate of the present position of Psychology we cannot ignore it. Some objection might perhaps also be taken to the author's classification of the leading "schools." These are, however, minor matters, and the book as a whole can be warmly recommended.

JAMES DREVER.

The Gestalt Theory. By BRUNO PETERMANN. (Translated by Meyer Fortes.) (The International Library of Psychology, Philosophy, and Scientific Method. London: Kegan Paul, Trench, Trübner & Co. 1932. 8vo, pp. xi + 344. Price 15s.)

This volume is a valuable contribution to the literature of Gestalt Psychology, and is addressed to a critical examination of Gestalt-theory as formulated by the Berlin school of thought.

With characteristic thoroughness Dr. Petermann sets out first of all to trace the ideological development of the Gestalt concepts as set forth in the writings of Wertheimer, Koffka, and Köhler from 1912 on. This section of the book is particularly interesting, since the genetic approach is one that reveals the way in which Gestalt theory has grown and altered; and at the same time it helps the reader to appreciate the final conceptions of Gestalt doctrine when brought together and presented as a systematized whole. No such systematic presentation has been given elsewhere.

The second part of the book is devoted to criticism. In the first place, Köhler's theoretical construction of physiological Gestalten—to which, in virtue of the postulate of psycho-physical isomorphism, the phenomenological Gestalten are held to conform—on analogy with dynamic physical systems (physical Gestalten) is impugned on the ground that it is not necessary to invoke the Gestalt concept to account for the phenomena observed in physical systems, since such phenomena can be understood perfectly well on the usual basis of principles of force. Köhler's attempt to link up psychology with physics—"from the starting-point of physics"—accordingly breaks down.

In the next place, the author examines the vast amount of experimental evidence brought forward in support of the Gestalt Psychology. Here he reaches the conclusion that, while no one of the observations is to be disputed, it cannot be held that an explanation of the phenomena on Gestalt principles alone is satisfactory. In every case the concept of volitional control must be brought in to supplement the Gestalt concepts. His final conclusion, accordingly, is that a fresh problem is thus indicated, the problem, namely, of the "direction of cognition" and Gestalt (conative control and Gestalt).

As an exposition and a criticism of the doctrines of the Berlin school *The Gestalt Theory* can be warmly recommended; but the translator has followed the German construction and idiom too literally, and this makes the book a needlessly difficult one to read.

F. AVELING.

Benedict Spinoza. By. J. ALEXANDER GUNN, B.Sc., Ph.D. (Melbourne: University Press; London: Macmillan & Co. 1925. Pp. xiii + 167. Price 8s. 6d.).

The author explains in the preface that his work "aims at giving, along with a biographical sketch, a general *vue d'ensemble* of the thought of one

of the world's greatest philosophers." In pursuance of this plan the successive chapters of the book deal with Spinoza's Life and Times, Formative Influences, the Nature of the Universe, Human Nature, Religious and Political Liberty, and the Commonwealth. There is appended a bibliography in two parts, the first of which deals with Spinoza's own works, the second with literature about the philosopher and his thought.

The book is pleasantly written and deals with its topics in an interesting way. The historical and biographical sections are good. They present a clear picture of the man and his environment, and show clearly how Spinoza's thought was influenced by Jewish tradition and thought and the new scientific view of the world.

The remaining portion of the book is an exposition of Spinoza's philosophy, metaphysical, ethical and political. It is not as successful as the rest. No doubt the main difficulty lies in the subject-matter; it is almost impossible to condense a complete system of philosophy into so short a space and yet combine clarity with adequacy. Professor Gunn is driven to use a great many highly technical terms belonging to Spinoza's philosophy without giving a sufficient explanation of their meaning and use. This makes the book of much less utility. The non-philosophical reader will soon find himself in difficulties with the terminology, while the student will be already acquainted with most of the subject-matter. In this way the author falls between two stools. The book is neither suitable for advanced work nor sufficiently elementary for the layman.

O. S. Franks.

Jaina Psychology. By C. R. Jain. (Allahabad: The Indian Press. 1929. Pp. 78.)

Mr. C. R. Jain, who is by profession a barrister, is the author of several works of the same modest bulk as this, such as *What is Jainism? The Practical Dharma*. But this little book with its, to this Journal, more provocative title, has only just been brought to my notice. As thus privileged, I believe I shall be better informed than other readers of this Journal, and hence I venture to draw attention to it. It is not as generally known as it should be, that a break-away from philosophy-cum-religion, as an unspecialized study, by the beginnings of a crude psychological analysis, was made in India in approximately the seventh century B.C. by one Kăpĭlă. Herein India anticipated Europe by about twelve hundred years. The idea arose, that the man was not just body and a spiritual substance or self, but that from the latter an immaterial organism of factors and processes might be distinguished, the self having nothing fundamentally in common with either this organism or that of the body. The new teaching 'caught on,' and was at length admitted into the 'established' Brahman culture as Sānkhya = 'computing,' equivalent to our 'analysis,' and into the younger teaching of Jains and of Sakyans (early Buddhists), the latter calling it *patisankhāna*, or *vibhajja* (analysis).

A feature for us of much interest is that the influence of the new teaching apparently acted as a stimulus to physiological analysis, India thus growing scientifically in a way the inverse of our own. And we are reminded of Professor Bergson's words uttered before our Society of Psychical Research: "What would have happened if modern science . . . instead of converging on the study of matter, had started by a study of the immaterial (*de l'esprit*)?" India did so start, and this alone should entitle her results in psychological thinking, both old and new, to a respectful and interested hearing, such as is so far withholden. Surely it is worth our while to inquire whether she has

come through the ages with the same or with a different outlook and *modus agendi* in psychology from our own!

The metaphysic known as Sānkhya is of a much later date. But the early attempt to distinguish between the self, or very man, and his mind had deep-going results. Brahman culture, very dubious at first, put Sānkhya into harness and drove it. But the newer un-established culture of early Buddhism was by Sānkhya put into harness and by it driven, till it ultimately out-ran Sānkhya, so that the detached 'man' or self became entirely replaced by the mind, the subject by the object. The 'man' became eventually a mere complex.

What had Jainism to say in this matter? Here is a point of intense interest in psychological history. A young unestablished culture, did it also become driven or did it harness and drive? Where is the English student, fresh from graduating in 'Mental and Moral' studies, who will go into this, as my husband commissioned me, in like circumstances, to go into the psychology of Buddhism? Mr. C. R. Jain is hardly the man to do it for us, pre-empted as he is by professional claims. It will be, for at least some years, a whole-time job. Yet let us glance at his little book.

We see at once that Jainism has done the harnessing and has not, like Buddhism and like ourselves, replaced the sovereign 'man' by a dummy ruler, by a complex of instruments or processes. "Ideas cannot be stuffed into that simple thing: the soul . . . the will, the intellect are aspects of the soul; attention is the bearing of stimulus from object to soul"; and so on. In a longer work he might possibly have expounded more fully all sides of a truly psychic psychology and made good where James Ward seemed to stop short: the exposition of the self as not only "having presentations" but as reacting on them, and as willing to have them.

Mr. Jain also fails us in other ways. Fearing to confuse us with Jainist technical terms, he fails to be other than slovenly in his use of English equivalents. Mind and consciousness get muddled with the self. Moreover, he betrays Indian weaknesses: (*a*) that of seeing in the self, fundamentally divine, a Thing needing only a clearing away of obscuration to be perfect, when what is needed is a becoming from the 'potential' (and he does use the term) to the actual *in growth*; (*b*) he claims that removal of the undesirable is the desirable as a positive fact, when we know that the desirable is in itself a positive growth to be won. "Cease," he says, "to be angry, and you are serene and peaceful" . . . nay, you may only be sulky. The weed is pulled up, the flower has to find room and air; (*c*) the Indian weakness in gripping (without the word) what *will* is; his little chapter only shows the man *as driven* by impulses bad or good, not as the driver; (*d*) the absence of any explicit loyalty to a venerable tradition of teachers and of their teaching. One might think from what is left unsaid, that this was the one work on Jainist psychology and the writer the only psychologist. On one or two 'howlers' in attempting to derive terms in our tongue it would be unfair to dwell.

No, the writer is not the man to give us what might be of far-reaching benefit: a history of Jain psychology. But he is calling before sunrise, and a fit response from English culture may come.

C. A. F. Rhys Davids.

Invention and the Unconscious. By Joseph-Marie Montmasson. Translated, with a Preface, by H. Stafford Hatfield. (London: Kegan Paul, Trench, Trübner & Co., Ltd. 1931. Pp. xxiv + 338. Price 15s.)

The substance of this book falls into two unequal parts. They are unequal in both value and extent. The first part, the briefer and incomparably the

better, provides us with historical material illustrative of scientific thought. Except for the short theoretical introduction, it is concerned throughout with the records of discovery and invention. Relevant facts are adduced from mathematics, the physical sciences, biology, the moral sciences, and from technology. But this material requires to be sorted. There are empirical records of inventors and original thinkers, who describe to us the manner in which they came by their discoveries. This, of course, is the material which we most require. Belonging to a somewhat lower category are the theories of inventors concerning the operations of the mind in the process of invention. Such theories are apt to be amateurish, but they may be highly suggestive. The psychologist cannot safely ignore them. We must place in a third, and still lower, category all purely external descriptions of scientific thought translated into the terms of a special psychological theory.

The well-known and important observations recorded by Henri Poincaré on the nature of scientific thought provide the best illustration of the first type of material. These records M. Montmasson has turned to good account, and he has had little difficulty in finding other important cases of a parallel kind. The case of Claude Bernard, on the other hand, is representative of our second class of material. As a physiologist, Bernard made important contributions to his science. But he also engaged in psychological speculations concerning inventive thought. It may be questioned, however, whether these speculations deserve the uncritical admiration which M. Montmasson accords to them.

The theory in terms of which most of the author's examples of invention are described may be briefly summarized as follows: The process of discovery exhibits four characteristic phases. It commences with conscious preparation, generally arduous and strongly motivated. This is followed by a phase of unconscious incubation. Sooner or later there follows a sudden inspiration or flash of illumination. This is the inventive act. It is followed by a fourth phase of conscious verification.

So far as it goes, the case is well made out. This general description broadly fits the facts. But it does not carry us far along the road to explanation. That is the business of the second part of the volume. This second part, however, is very disappointing. The whole theoretical system is exceedingly unclear. "The Unconscious" reveals itself for little, if anything, more than a question-begging phrase. The term, one understands at first, is to be applied to "real psychical facts to which no attention is paid." "The unconscious is the residue of a consciousness which has reached a minimum of attention." So far so good. This is the old-fashioned unconscious with which we are familiar. It may be doubted whether it is a very useful concept for the purposes in hand, but it is at any rate one that is tolerably clear. But the author does not in fact adhere to it. Later we are told that the term is to cover everything, whether causes or necessary conditions, which has escaped consciousness. What this in effect means is simply this. Instead of saying outright that we do not know the causes or conditions of a certain mental state, we are henceforth to say, "It is caused by the Unconscious." That this is in fact the author's own procedure there cannot be any doubt. We wake up one morning to find ourselves depressed, and we cannot say why we are depressed. Ergo, it is caused by the Unconscious. In a reasoned argument we employ certain premisses, but we cannot say whence these premisses are derived. Ergo, they are suggested by the Unconscious. It is obvious that in the study of invention we shall find plenty of scope for "the Unconscious" as an explanatory concept. We shall find plenty of use for it elsewhere. It provides a universal explanation when explanation fails. From this we may deduce a simple corollary: The

explanatory value of the concept varies in proportion to our ignorance concerning the human mind.

C. A. MACE.

Genius and Creative Intelligence. By NATHANIEL D. MITTRON HIRSCH. (Sci-Art Publishers, Cambridge, Mass. 1931. Pp. 339.)

This is a very comprehensive and in many respects very interesting books The main object of the author is the investigation of the nature of Genius. The investigation divides itself into three parts. In the first part, occupying the first three chapters, the author examines the various types of adaptation to the environment, interpreting history from this point of view. This part ends with a strong plea for what he calls "creative adaptation," which is briefly the adoption of positive eugenic measures. The second part, comprising the next eight chapters, is devoted to a consideration of the "Psychological Constitution of Man." The characteristic feature of this discussion is the emphasis upon what the author calls the three "dimensions" of Intelligence. The first "dimension" of Intelligence is perceptual intelligence, the second conceptual intelligence, and the third "creative intelligence." The discussion of the first and second "dimensions" involves nothing that is really new, though the discussion itself is interesting. Instinct, emotion, sentiment, etc., are treated on lines following closely the views of McDougall. With the consideration of "creative intelligence" the author arrives at his subject proper. "Creative intelligence" he regards as a coalescence, as it were, of the other two "dimensions," and as the main characteristic of Genius. To the elaboration of his views, and the criticism of other theories of the nature of Genius, the author devotes the third part of the book, consisting of three chapters.

The precise meaning of the coalescence of the first and second "dimensions" of Intelligence to form the third is not made very clear. The author obviously intends a coalescence of the intellectual and the passional, but the third "dimension" is not merely this coalescence, but is an "emergent" from it. Like the other "dimensions" the third has cognitive, conative, and affective phases or aspects. These the author terms "intuition," "creativity," and "ecstasy" respectively.

This bald summary of the contents of a work which covers a wide field and shows evidence of an accurate knowledge of an extensive literature scarcely does the book justice. It is comprehensive if not profound, and it would be valuable merely as a summary of the literature.

JAMES DREVER.

The Social Life of Monkeys and Apes. By S. ZUCKERMAN. International Library of Psychology, etc. (London: Kegan Paul, Trench, Trübner & Co. 1932. Pp. xii + 357. Price 15s. net).

It is by no means easy to decide whether the title of this book is not misleading. It is certain that the book is concerned mainly with the sexual life and activities of the sub-human primates. But then it is assumed throughout that the social life is based on sex—together with "dominance," the main manifestations of which are sexual also—and hence the author can claim that his title is in accordance with the contents of the book. However that may be, the book contains a mass of very valuable observational material, which cannot but be appreciated by the animal psychologist, and must also command the attention of the social psychologist, whether the latter acquiesces or not in some of the underlying assumptions.

The social psychologist will probably question the reliability of observations made on animals in captivity—especially animals so high in the scale as the primates—as a basis for a knowledge of the normal social life of the animals. The question is a very legitimate one. Monkeys and apes in captivity have scope for few activities except the sexual, and those deriving from the sexual, and that is only slightly less true of the animals on Monkey Hill than of those confined within cages. The author is quite aware of this, but he does not appear to give it sufficient weight. In fact he argues (p. 216) that environmental influences do not determine socio-sexual adjustments, but that these are determined solely by "the mutual responses of the animals." Surely these responses are themselves largely influenced by environmental influences, and may be profoundly modified by conditions inseparable from captivity.

After a brief preliminary consideration of the relation of mammalian to human sociology, the author goes on to discuss very fully the sexual physiology of mammals, and then of the sub-human primates. The first seven chapters of the work are thus taken up. The remaining chapters consist in part of invaluable observational material, derived mainly though not entirely from observation of the baboon colony in the London Zoo, and in part of a critical examination of the opinions of other writers. The whole ends with a very full bibliography extending to twenty-four pages. Though the author adopts, without fully understanding it, the crude behaviouristic psychology of conditioned reflexes, and though the style is loose and the logical sequence of the argument at times very difficult to follow, the observational material in itself makes the book of first-rate importance.

JAMES DREVER.

Studies in Sociology. By MORRIS GINSBERG, M.A., D.Lit., Martin White Professor of Sociology in the University of London. (London: Methuen & Co. 1932. Pp. xi + 211. Price 6s. net.)

In this volume Professor Ginsberg has collected a number of articles contributed by himself to various journals in recent years, and has added a hitherto unpublished one on the claims of Eugenics. According to his statement in the Preface, they "are concerned with questions on the borderline between social philosophy, psychology, and biology, and may, it is hoped, serve to illustrate the writer's conception of the relation between these disciplines and sociology." But these remarks, although no doubt they describe the main purpose of the book, are too modest as a description of its contents. In the final essay on Eugenics, and in the preceding one on the Interchange between Social Classes, Professor Ginsberg deals with definite sociological problems; while in the psychological essays he is not always concerned with the sociological bearings of his arguments, and discusses the nature and interrelations of emotion and instinct from a definitely psychological point of view. And on all these matters he has much of importance to say.

In the main, however, he is concerned with the relations of sociology to other sciences, and his aim is to exhibit its scope and methods by comparing it with some of them, and by considering the relevance to it of some of the conceptions of which they make use. And it is not easy to dispute either the importance of these tasks or the adequacy of his qualifications for performing them. In view of the novelty of the science and of the extravagant claims that are sometimes made on its behalf, as well as of the intrinsic interest of the wider topics which the discussion can be expected to involve, his concern with such problems is hardly to be regretted. And his keen con-

sciousness of the complexity of its subject-matter, and of the harm it can suffer through hasty analogies drawn from other sciences and elsewhere, is an effective guarantee that he will make no further extravagant claims, and that the discussion will be of the cautious and temperate kind which the situation demands. At times, it is true, his arguments are not altogether clear, partly owing to the compression involved by the comprehensive nature of the topics under discussion, and partly owing to the raising of questions, such as the status of universals and particulars as objects of knowledge, which, however relevant to sociology, seem rather out of place in a book about it, and are not susceptible of brief treatment even by those who are professionally concerned with them. But his knowledge of other sciences is much more extensive and thorough than it is natural to expect in anybody not professionally concerned with them, and is more than adequate for protecting the autonomy of his own; while his cautious and critical attitude of mind, reinforced by the careful methods of analysis in which it expresses itself, is amply sufficient for the performance of the other parts of his task. As we should expect, his discussions are conducted in a somewhat negative spirit, and issue in no very definite result; but this is obviously to be commended on the ground that the removal of erroneous conceptions on these matters is more important than the establishment of true ones, which could at best be only provisional, and at the worst might stand in the way of the future development of the science.

Nor are the more positive discussions of matters which fall outside this main aim any less admirable. Whatever the point of view from which they are conducted, the psychological essays will be found to offer much of interest to professed students of the subject. And especially interesting is the attempt, in the essay on instinct and emotion, to reconcile the view that emotion is a random discharge of energy, and consequently less effective than instinct, with that which supposes it to be a force capable of organizing and controlling behaviour, and consequently more effective, by regarding these two apparently contradictory phenomena as successive stages of the same process. In Professor Ginsberg's own words (p. 111): "Emotions then appear to be states of tension or maladjustment, arising from conditions of conflict or delay, or failure of normal response or suddenness of excitement or overstimulation, passing over into more or less adaptive states, exhibiting prolonged and persistent behaviour of a varied and plastic character." To many readers, however, the essays on actual sociological problems will probably seem the most interesting part of the book. And it would certainly be difficult to imagine better examples of the way in which the theoretical discussion of uncertain and controversial practical questions should be conducted. Particularly excellent, and especially timely in view of the hasty dogmatism on the subject which is current in responsible quarters, is the final one on Eugenics. When it is possible for the Dean of St. Paul's, in a serious work on moral and social problems, to say that "there is really not the slightest doubt that although the inferiority of the casual labourer is partly nurtural, and capable of being reduced by better conditions, ability of the kind which leads to success in the intellectual professions is strongly inherited," and to claim, apparently for reasons of this kind, that Eugenics "is a religion, and its name is Christianity" (*Christian Ethics and Modern Problems*, popular edition, pp. 276, 277), a dispassionate academic consideration of the question can hardly be out of place. And though Professor Ginsberg does not mention Dr. Inge, he has offered a careful analysis of the more important presuppositions and implications of eugenic theories and proposals which admirably fulfils this need. It is possible that his conclusions may not universally com-

mend themselves; but no discussion of the question can neglect the evidence and arguments on which they are based without forfeiting its claim to be taken seriously.

O. DE SELINCOURT.

The Dynamics of Education. By HILDA TABA, Ph.D. With an Introduction by W. H. Kilpatrick. (London: Kegan Paul, Trench, Trübner & Co. 1932. Pp. xvi + 278. Price 10s. 6d.)

Dr. Taba's book is partly an attack on much current psychology, partly a plea, on lines similar to Dewey's, for a less static conception of education. Atomistic psychology, based on Newtonian physics, has distorted human nature. Thus it has deliberately isolated factors for experiment (*e.g.*, memory, or "intelligence"), forgetting that the mind does not work in any such divisions; or again, it has sought in Behaviourism the conditioned reflex as an ultimate. Yet modern physics is becoming less static: it has relinquished its atoms, whilst with the development of Biology the evolutionary attitude is permeating all studies. In this part of her work Dr. Taba provides a much-needed criticism, and she makes her points clearly and forcibly. The rest of the book is a development of the thesis that education is to do with Change, with Becoming, that it should be "dynamic" (*i.e.* "all that is learned becomes effective in the conduct of the learner and can be put to use in further learning"). Education, therefore, must be forward-looking, not static or preservative of the *status quo*. But this forward aim must not be narrowly conceived as in the so-called scientific education which results from job-analysis—a type which the author justly condemns as "blue-print" education. Indeed, all strictly vocational education would seem to fall under this head, and is ruled out because it "serves for static preservation rather than for the dynamic reconstruction of human experience." On the other hand, Dr. Taba criticizes both the "child-centred" school and the project method for lack of sound theoretical basis: they depend too much on the whims and fancies of children. But when we come to inquire what exactly this basis should be, Dr. Taba is not very explicit. Although she avoids the unqualified objectives that she satirizes as "blanket terms," yet her definition of the aim of education is certainly too vague and abstract. "The aim of education," she writes in the concluding paragraphs, "should be to make clear fundamental abstractions and generalizations through the medium of concrete experience, thus providing the individual with the necessary tools for integrating the concrete manifold by means of the generalities and for seeing and creating fundamental relationships between ideas and facts." All that is no doubt true, but it needs ample illustration to become intelligible to the average reader. And at the end the problem is no more than stated: "A difficult constructive task yet lies ahead—the task of evolving standards and principles necessary for guiding such self-conducted activities. . . . It is the task of progressive curriculum planning to extract from our heritage of knowledge, ideas, and thought those elements that are fundamental in various types of experience and which can serve as consistent guides for learning without delimiting its results in advance."

F. A. CAVENAGH.

Books received also:—

M. Planck. *Where is Science Going?* (Preface by Albert Einstein. Tr. by J. Murphy.) London: George Allen & Unwin Ltd. 1933. Pp. 224. 7s. 6d.

T. V. Seshagiri Row, M.A., Ph.D. *New Light on Fundamental Problems.* University of Madras. 1932. Pp. xv + 273. 4s.; Rs.3.

E. S. Robinson. *Man as Psychology Sees Him.* New York: The Macmillan Co. 1932. Pp. vii + 376. 12s. 6d.

Lord Raglan. *Jocasta's Crime.* London: Methuen & Co. 1933. Pp. xii + 215. 6s.

W. R. Inge, D.D., D.Litt. *The Eternal Values.* (Riddell Memorial Lectures, 1932.) Oxford University Press; London: Humphrey Milford. 1933. Pp. 39. 2s. 6d.

J. L. Stocks and G. Ryle. *John Locke.* (Tercentenary Addresses.) Oxford University Press; London: Humphrey Milford. 1933. Pp. 38. 2s.

A. Schweitzer. *My Life and Thought.* (Tr. by C. T. Campion, M.A.) London: George Allen & Unwin Ltd. 1933. Pp. 288. 10s. 6d.

A. Goldenweiser, Ph.D. *History, Psychology and Culture.* London: Kegan Paul, Trench, Trübner & Co. 1933. Pp. xii + 475. 18s.

G. Watts Cunningham. *The Idealistic Argument in Recent British and American Philosophy.* New York and London: The Century Co. 1933. Pp. xiii + 547. $4.

J. Gibson. *John Locke.* (Henriette Hertz Lecture, 1933. From the Proceedings of the British Academy. Vol. XIX.) London: Humphrey Milford. 1933. Pp. 25. 1s. 6d.

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G. Humphrey, Ph.D. *The Nature of Learning.* (International Library of Psychology and Philosophy.) London: Kegan Paul, Trench, Trübner & Co. 1933. Pp. vii + 296. 15s.

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J. B. Baillie. *Andrew Seth Pringle-Pattison.* 1856–1931. (Proceedings of the British Academy, Vol. XVII.) London: Oxford University Press: Humphrey Milford. 1932. Pp. 45. 2s.

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Nalini Kanta Brahma, Ph.D. *Philosophy of Hindu Sādhanā.* (Foreword by Sir Sarvepalli Radhakrishnan.) London: Kegan Paul, Trench, Trübner & Co. Pp. xvi + 333. 12s. 6d.

Arthur Christy. *The Orient in American Transcendentalism: a Study of Emerson, Thoreau, and Alcott.* New York: Columbia University Press. 1932. Pp. xix + 382. 26s. 6d.

S. Alexander, O.M., F.B.A. *Spinoza.* Manchester University Press. 1933. Pp. 20. 1s. 6d.

Norman Kemp Smith. *John Locke.* Manchester University Press. 1933. Pp. 31. 2s.

F. M. Chapman and P. Henle. *The Fundamentals of Logic.* New York: Charles Scribner's Sons. 1933. Pp. xiii + 384. $2.

Sir James G. Frazer, O.M., F.R.S. *Condorcet on the Progress of the Human Mind.* (Zaharoff Lecture, 1933.) Oxford at the Clarendon Press: Humphrey Milford. 1933. Pp. 23. 2s.

L. V. Lester-Garland. *The Religious Philosophy of Baron von Hügel.* London: J. M. Dent & Sons. 1933. Pp. vii + 115. 5s.

Wen Kwei Liao, Ph.D. *The Individual and the Community.* (International Library of Psychology and Philosophy.) London: Kegan Paul, Trench, Trübner & Co. 1933. Pp. xv + 314. 15s.

Ernst Bertram. *Nietzsche: Essai de Mythologie.* (Tr. by R. Pitrou.) Paris: Rieder. 1932. Pp. 468. 40 frs.

Georges Walz. *La Vie de Frédéric Nietzsche. D'après sa Correspondance.* Paris: Rieder. 1932. Pp. 565. 40 frs.

Eugène Dupréel. *Traité de Morale.* Two vols. Bruxelles. Editions de la Revue de l'Université de Bruxelles. 1932. Vol. I. Pp. ix + 351. Vol. II. Pp. 353–705.

S. Boulgakoff. *L'Orthodoxie.* Paris: Librairie Felix Alcan. 1932. Pp. 271. 15 frs.

Pedro Descoqs, S.J. *Praelectiones Theologiae Naturalis. Cours de Théodicée.* Tomus Primus, *De Dei Cognoscibilitate, I.* Paris: Gabriel Beauchesne. 1932. Pp. vi + 725. 105 frs.

Louis Vialle. *Le Désir du Néant. Contribution à la psychologie du divertissement.* Paris: Librairie Félix Alcan. 1933. Pp. 748. 60 frs.

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R. Descartes. *Regulae ad Directionem Ingenii.* Texte et Traduction, par Georges Le Roy. Paris: Boivin et Cie. 1933. Pp. xxi + 221. 20 frs.

A. Reymond. *Les Principes de la Logique et la critique contemporaine.* Bibliothèque de la Revue des Cours et Conférences. Paris: Boivin. 1933. Pp. 277. 25 frs.

Marcel Foucault. *La Mesure de l'Intelligence chez les Écoliers.* Paris: Librairie Delagrave. 1933. Pp. 135. 15 frs.

Various. *La Phénoménologie.* (Journées d'Études de la Société Thomiste.) Le Saulchoir, Kain, Belgique. Société Thomiste. 1933. Pp. 113. 15 frs.

Ernst Harms. *Hegel und das zwanzigste Jahrundert.* Heidelberg: Carl Winters Universitätsbuchandlung. 1933. Pp. 42.

Guido Calogero. *Studi Sull'eleatismo.* Roma: Tipografia del Senato. 1932. Pp. 264. Lire 40.

Lina Amante. *Il Problema degli Spiriti Finiti in Berkeley.* Roma: Tipografia del Senato. 1932. Pp. 54. Lire 8.

Carmelo Ottaviano. *Il Pensiero di Francesco Orestano.* Palermo: Industrie Riunite Editoriali Siciliane. 1933. Pp. 112. Lire 6.

REQUEST TO READERS

I have recently come into the possession of some letters to and from the late Bernard Bosanquet, which are of considerable interest with regard to the development of his opinions. Before deciding whether to publish them or not, I should like to know whether any readers of *Philosophy* could supply me with others. They would be carefully copied and returned at once.

J. H. Muirhead.

Dyke End,
Rotherfield,
Sussex.

CORRESPONDENCE

To the Editor of *Philosophy*

THE AESTHETIC VALUE OF TECHNIQUE IN ART

Sir,

In an article on "Philosophy and Art" in the *Journal of Philosophical Studies* for April 1929 Professor S. Alexander seeks to promote the co-operation of artists, art critics, and philosophers in answering questions about art. Though Professor Alexander makes the doubtful assertion that "it is much more certain that the artist can help the philosopher than that the philosopher can help the artist," it is fairly certain if we judge from the available experience of such co-operation, that it is likely to be of the utmost value to aesthetics. As one who endeavours to combine practice in art with an interest in aesthetic problems, I thus venture to address you on a question concerning artistic practice put by Professor L. Arnaud Reid in his article on "The Problem of Artistic Production" in the *Journal* for October 1930. Professor Reid's contentions, though often stimulating, do not, I think, provide an adequate answer to the question he puts.

After stating that embodiment in material is essential for aesthetic experience, Professor Reid asks: "Is technique itself merely a means to embodiment, or may it have in itself an aesthetic value?" After reasoning from many aspects, he answers the question in the affirmative. I will not presume to say that the answer is wrong, but I must take the liberty of suggesting certain doubts.

To answer the question put by Professor Reid it is of course essential to know what is meant exactly by technique. Professor Reid speaks of it as including "all the practical activity, involving various degrees of skill, which can be said to be at all relevant to the making of a work of art." This is a little vague, for there is no indication of what the "practical activity" comprises. A closer examination of technique is really necessary.

Technique in representational arts, like painting and sculpture, may be divided under two heads: (1) the means of representation of (*a*) physical objects and of (*b*) design, and (2) the manipulation of the material. In arts, like music and architecture, technique is, of course, concerned only with (1)(*b*) and (2). The distinction, as is well known, is a very important one for aesthetics. (1)(*a*) The means of representation involves the ability to reproduce the semblance of objects in paint or stone in accordance with perception, which involves a feeling for proportion, a knowledge of anatomy and perspective, and the behaviour of light and shadows on objects. In painting this technique is the translation of the appearance of objects on to a flat surface. In (1)(*b*) the technique is obviously much simpler, as it is little affected by craftsmanship. (2) Effective manipulation of the material in art is the use of that material (*a*) in effectual representation and (*b*) so as to reveal its maximum of beauty. One of the chief problems of art is to make an effective compromise between expressing the beauty of material and expressing a conception in terms of design and representation. These two elements of technique by no means coexist in the same degree, for an artist may have a superb manipulation of material so as to reveal its beauty yet be deficient in representational power, and *vice versa*. The sixth-century Greek sculptors expressed the beauty of the marble in a manner superior to the sculptors of the fourth century B.C., but they were much inferior in representational power.

We can say, I think, that these two divisions comprehend technique. Character, design, colour, emphasis of form, and all the qualities of a finished work of art are not technical, but the means of their embodiment in material are technical in the sense of (1)(*a*) and (*b*) and (2)(*a*). 2 (*b*) involves the expression merely of the material. We have now to restate Professor Reid's question: have any of these technical processes aesthetic value in themselves?

It is well to begin with examples, and I choose them from painting as the art with which I am most familiar; and in doing so it is interesting to endeavour to separate the contemplation of technique from representation of physical objects and design, and of beauty of material to see if it is likely that any aesthetic value will remain. A drawing will prove to be the simplest example. In contemplating a drawing of a head by a master of technical dexterity like Hals or Sargent, pleasure is often experienced, especially by fellow artists, in the masterly way the lines are decisively placed on the paper. In a few bold strokes such a master can convey the structure and character of a head, whereas a beginner employs numerous laboured and tentative lines. We derive pleasure, therefore, from the effectual manner in which the head is represented. But think away this representational element, think of it merely as an abstract assortment of lines, and we no longer get the same pleasure. The bold stroke that expressed the line of the jaw gave pleasure as an effective expression of this feature, and thus as technique, but dissociate it from what it represents and it no longer gives that pleasure. It may still give pleasure of a different kind if the assortment of lines assembles into a pleasing abstract design, but the aesthetic experience it affords is not in the technique but in the design. If we now think away the design, and the material gains nothing in beauty by its use, all that is left is technique, and it is questionable whether this alone has any aesthetic value: whether, indeed, it has become anything more than a meaningless scribble. Let us apply this reasoning to a water-colour of a harbour with ships and buildings by a master of technique like Mr. Wilson Steer or Sir Charles Holmes. Pleasure is afforded by the effect of broad fresh washes of colour applied rightly at once in an effective representation. No attempt is made at representational finish, for much of the aesthetic value of water-colour depends on the expression of the material, and its beauty can only be fully revealed if freshness is preserved by a direct method. Much of the pleasure in such a water-colour is derived from the association of this method with the recognition of objects. Dissociate this representational element and the pleasure lessens, but there is still the design, colour, and material. Again, think away the design, and though it is difficult to dissociate the colour relations from this particular material, it can, I think, be done. The wash of blue sky changing to yellow and purple near the horizon, with the white paper shining through, is of aesthetic value as colour, but it also has aesthetic value merely as a wash of colour on paper, especially as the wash is broken here and there to emphasize the character of the wash, and thus being more expressive of the material. This last is an effective manipulation of material so as to reveal its beauty. It has, of course, aesthetic value, but is it technique?

It may be argued that technique, if it affords aesthetic pleasure, obviously only affords it as an art of time, even when the technique it belongs to is an art of space, and that it is never, by its very nature, an art of space. It is not then generally derived from direct perception, but from imagination. The work of art is the result, technique is a process; we perceive the work of art, the process we imagine; and it depends on our experience of the technical processes to what extent we derive pleasure from them. We look at a painting by Velasquez, we imagine how it was painted, and it would be the pleasure of that imagination that would supply any possible aesthetic value of technique. It is often derived, of course, from a certain amount of direct perception of a performer on a musical instrument or seeing a painter at work (but only a certain amount, as we can perceive in such cases only with our senses of sight and hearing, whereas to complete the perception we would have to use our sense of touch, which has to be imagined), but generally it is derived chiefly from imagination. It is true that the artist or critic perceiving a work of art may derive much pleasure from imagining the processes of its construction; but it would appear that if it is ever aesthetic contemplation it is so only in common with the contemplation of other practical activities not necessarily devoted to art; and the aesthetic value depends rather on the circumstance of a percipient who experiences beauty in so many practical activities of life than on the production of a work of art.

I am,

Yours faithfully,

February 26, 1933. ARNOLD WHITTICK.

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